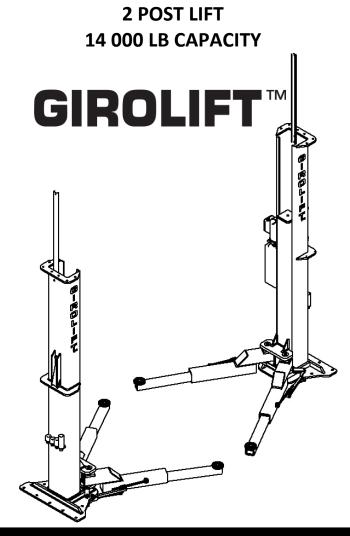
INSTALLATION & OPERATING INSTRUCTIONS MANUAL

INSTALLER AND OWNER'S MANUAL

HT-14000 MODEL



IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

<u>READ THIS MANUAL CAREFULLY BEFORE INSTALLING, OPERATING, SERVICING OR</u> <u>MAINTAINING THE LIFT.</u>

OPERATING CONDITION

The lift is designed for **indoor use only** and operating in a **dry** environment for temperature between 5° to 40° C ($41^{\circ} - 104^{\circ}$ F). Lift's installation outside is prohibited.

CANADA HYDRAULIQUE EQUIPEMENT INC. DISCLAIMS ALL LIABILITY IF THE CONDITIONS ARE NOT FULFILLED.

MANUAL : MAN-HT-14000-SYM-C01-E

N.B. CANADA HYDRAULIQUE EQUIPEMENT INC. IS CERTIFIED BY CWB (CANADIAN WELDING BUREAU) ACCORDING TO CSA W47.1 AND CSA W59 STANDARDS.

ASSISTANCE

(FOR PARTS¹, SERVICE OR TECHNICAL QUESTIONS)

(WRITE DOWN DISTRIBUTOR INFORMATION IN BOX)

HAVE MODEL AND SERIAL NUMBERS OF GIROLIFT ANS SERIAL NUMBER AND MODEL OF POWER UNIT FOR SERVICE AND PARTS :

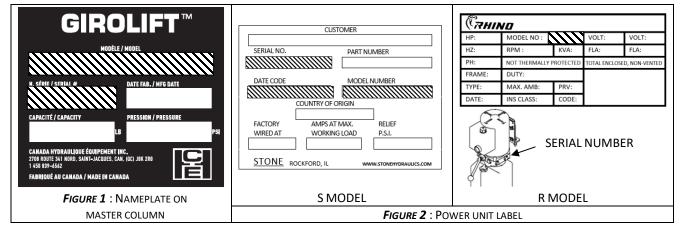
GIROLIFT MODEL :

GIROLIFT SERIAL NUMBER : _____

POWER UNIT SERIAL NUMBER (" SERIAL NO. + DATE COTE " FOR S MODEL) : _____

Power unit model ("model number") :

(INFORMATIONS IN HATCHED BOXES OF FIGURES 1 AND 2.)



MANUFACTURER

CANADA HYDRAULIQUE EQUIPEMENT INC.

450-839-6562 1-888-839-6562

(TOLL-FREE NUMBER)



450-839-9072



INFO@GIROLIFT.COM

WWW.GIROLIFT.COM

WORKING TIME (EASTERN TIME)

Monday to Thursday 8:00 to 17:00 Friday 8:00 to 12:00 Saturday and Sunday closed

¹ PARTS AVAILABLE ONLINE : WWW.GIROLIFT.COM/EN/ACCESSORIES

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GENERAL SPECIFICATIONS

LIFT SPECIFICATIONS		VALUES			LIFT SPECIFICATIONS			VALUES	
PNEUMATIC PRESSURE		80 TO 125 PSI			TOTAL HEIGHT			153"	
LIFTING HEIGHT		72"			APPROXIMATE SHIPPING WEIGHT (LIFT AND PACKAGING) 3600 LB				
OPERATING PRESSURE		2800 PSI							
POWER UNIT VOLTAGE*	MODEL	LIFTING SPEED	LOWERI SPEED		SPEED	POWER	AMPERAGE	DUTY ON	CYCLE OFF
220 V / 1 рн. / 60 Hz	R	86 SEC	23 SEC		2 GMP	2 HP	12 A	93 SEC	507 SEC
220 V / 1 рн. / 60 Hz	ć	92 SEC 23 SEC		С	1.8 GMP	2 HP	11 A	104 SEC	30 MIN
575 V / 3 рн. / 60 Hz	S	92 SEC	23 SEC	С	1.8 GMP	2HP	4.5 A	120 SEC	600 SEC

***NOTE** : Use time delay fuse with this lift.

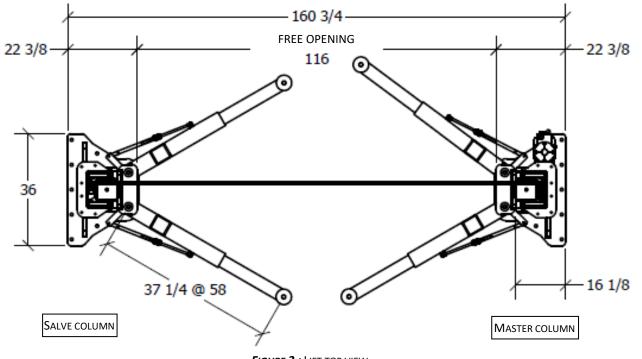
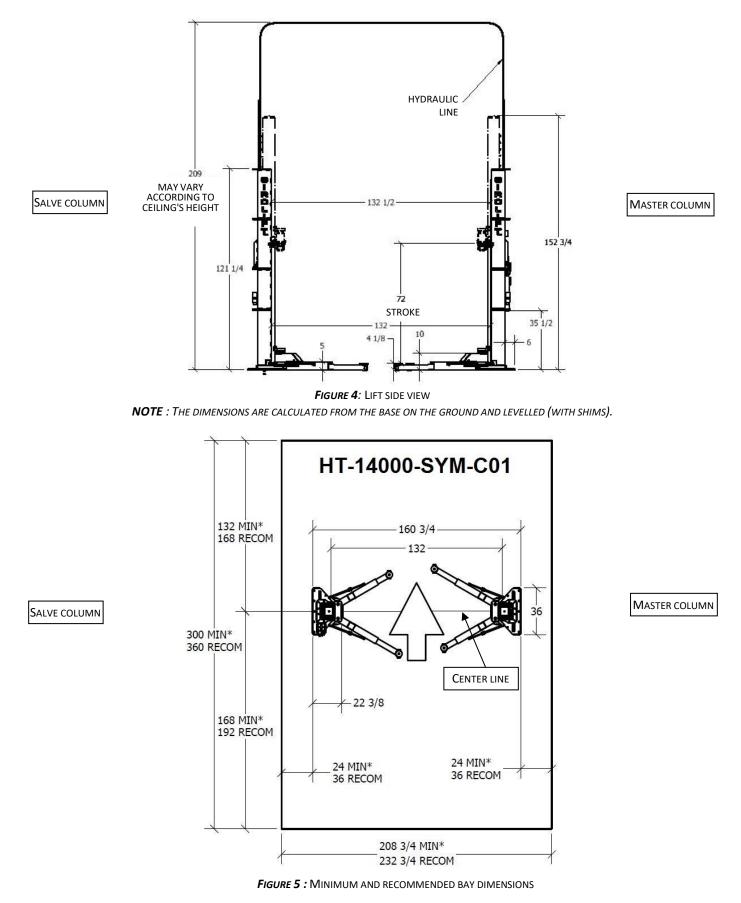


FIGURE 3 : LIFT TOP VIEW



MAIN COMPONENT IDENTIFICATION

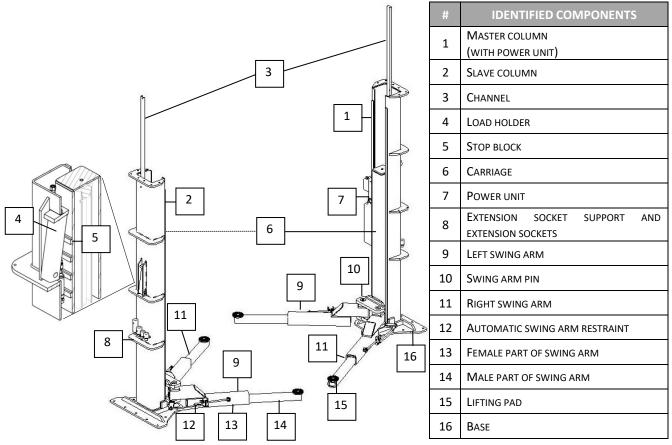
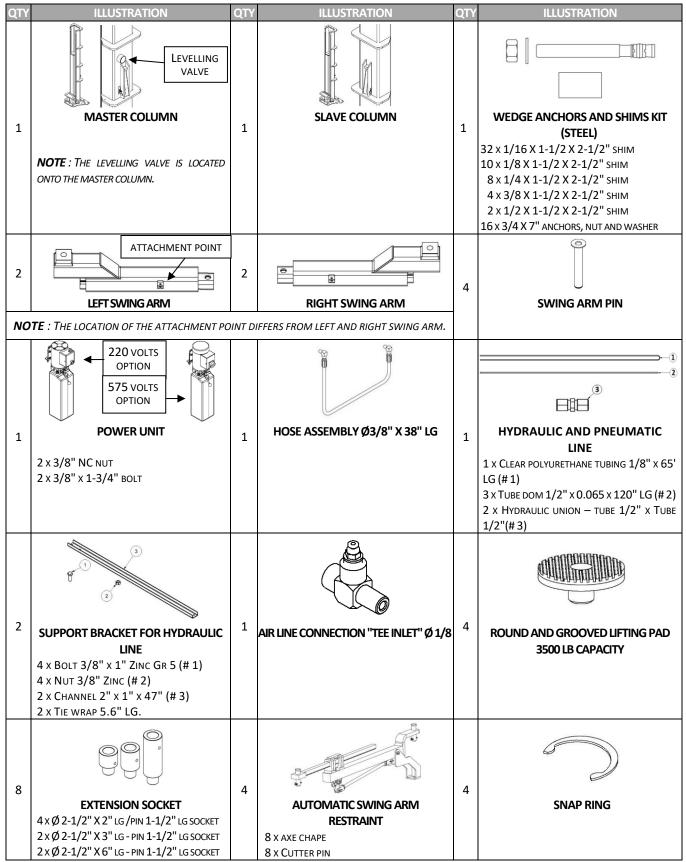


FIGURE 6 : MAIN COMPONENT IDENTIFICATION

LIST OF RECOMMENDED TOOLS FOR INSTALLATION

#	TOOLS	USE	#	TOOLS	USE
1	MEASURING TAPE - 50' LG	IF NEEDED	12	Tube bender	TO FOLD DOM TUBES
2	CHALK MARKER	-	13	TUBE CUTTER	TO CUT DOM TUBES
3	STRAIT LINE CHALK REEL	FLOOR INDICATIONS OF	14	ELECTRICAL TAPE	ATTACH PNEUMATIC TUBES
4	PERMANENT MARKER		15	ADJUSTABLE WRENCH	IF NEEDED
5	SCREWDRIVER HANDLE PRY BAR	MOVE BASES OF COLUMNS AND INSTALL THE SHIMS		WRENCH SET 9/16"(2x), 3/4", 13/16", 7/8", 11/16"	IF NEEDED
6	HAMMER DRILL WITH CONCRETE HAMMER DRILL BIT 3/4"	DRILLING THE ANCHOR HOLES		STEPLADDER	INSTALL HYDRAULIC / PNEUMATIC CONDUITS
7	WET DRY VACUUM	CLEAN THE ANCHOR HOLES		RETRACTABLE BLADE KNIFE	CUT PNEUMATIC TUBE
8	B HAMMER DRIVE IN ANCHORS AND FIXATION OF DOM TUBES.		19	FLAT SCREWDRIVER 3/16"	TO BLEED THE AIR FROM THE
9	TORQUE WRENCH 1-1/8"- DRIVE	TIGHTEN ANCHORS		RAG	HYDRAULIC SYSTEM
10	TORQUE WRENCH 7/8"-DRIVE	TIGHTEN FITTINGS		TEFLON TAPE	CONNECT TO MAIN AIR INPUT
11	Funnel	Fill power unit tank	22	Pliers	LOCK THE CUTTER PINS OF THE AUTOMATIC SWING ARM RESTRAINT

LIST OF MATERIALS PROVIDED



INSTALLATION INSTRUCTIONS

REFER TO : ANSI/ALI ALIS :STANDARD FOR AUTOMOTIVE LIFTS - SAFETY REQUIREMENTS FOR INSTALLATION AND SERVICE

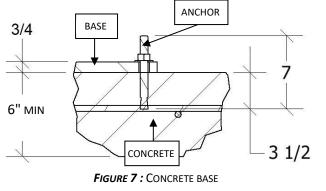


BEFORE INSTALLATION, REVIEW LOCAL CODES AND OBTAIN APPROPRIATE PERMITS(S) IF REQUIRED.

CONSULT A QUALIFIED PERSON TO ADDRESS SEISMIC LOADS AND OTHER LOCAL AND STATE REQUIREMENTS. IF FLOOR SPECIFICATIONS AND RECOMMENDED MEASURES FOR THE LIFT CANNOT MEET THE REQUIREMENTS, CONTACT THE GIROLIFT MANUFACTURER BEFORE PROCEEDING TO THE INSTALLATION.

COLUMN INSTALLATION

1. FLOOR SPECIFICATIONS : VERIFY AND MEET FLOOR SPECIFICATIONS BEFORE INSTALLATION. SEE FIGURE 7.



FLOOR SPECIFICATIONS	VALUES
CONCRETE THICKNESS	6" мілімим
Composition	CONCRETE WITH REINFORCEMENT
CAPACITY	SURFACE CONSTRAINT TO 4000 PSI (30MPA)
QUALITY	ANCHOR LOCATED AT MORE THAN 12" FROM CRACK OR FISSURE.

A WARNING 1.

1. DO NOT INSTALL THE LIFT ON ASPHALT OR ANY SIMILAR OR UNSTABLE COMPOUND. 2. DO NOT INSTALL THE LIFT IN A PIT OR DEPRESSION DUE TO FIRE OR EXPLOSION RISKS.

- 2. LOCATION OF THE GIROLIFT : ACCORDING TO THE RECOMMENDED MEASURES OF *FIGURE 5*, MARK ON THE FLOOR THE GIROLIFT INSTALLATION SITE AND THE CENTER LINE.
 - The minimum height of the ceiling or any other structure must be at more than 153" from the ground. (Recommended clearance above lift)

3. COLUMN ERECTION :

Do not use chains or other abrasive material directly on the column surface which could damage the paint while moving the lift.

3.1 Using a safe and adequate handling equipment and a lifting strap, move the column at the nearest installation site. Place the lifting strap at the center of gravity (equal weight distribution) of the column. See *Figure 8.*



3.2 LAY DOWN THE COLUMN TO THE GROUND.

3.3 MOVE THE LIFTING STRAP TO PIVOT POINT UNDER THE TIGHTENED. SEE **FIGURE 8.**

3.4 RAISE COLUMN 1" ABOVE GROUND

TO ROTATE IT VERTICALLY.

3.5 LOWER THE BASE NEAREST TO THE GROUND.

3.6 PUSH ON THE BASES SO THE COLUMN IS PERPENDICULAR TO THE FLOOR WHILE LOWERING IT AT THE SAME TIME TO THE GROUND.

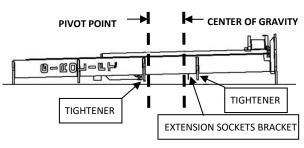


FIGURE 8 : POINT OF PIVOT AND CENTER OF GRAVITY OF A GROUND COLUMN

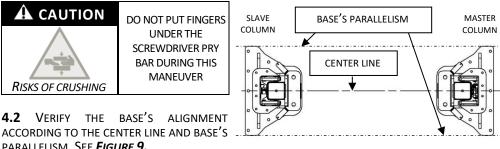
4. BASE ALIGNMENT ON THE SAME AXIS:

NOTE : IT IS STRONGLY RECOMMENDED TO INSTALL THE COLUMN AS SEEN OF **FIGURE 9** (MASTER COLUMN – VEHICLE PASSENGER SIDE) TO FACILITATE THE USER'S MOVEMENT WHILE USING THE LIFT. COLUMN INVERSION MAY BE MADE ACCORDING TO THE USER NEEDS.

4.1 INSERT 2 SCREWDRIVER HANDLE PRY BARS UNDER THE BASE WITH A MOVEMENT LEFT-RIGHT RIGHT-LEFT TO MOVE THE COLUMN. SEE *Figure 10.*



DO NOT PUT FINGERS UNDER THE SCREWDRIVER PRY BAR DURING THIS MANEUVER



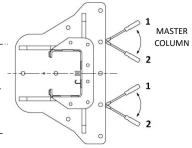
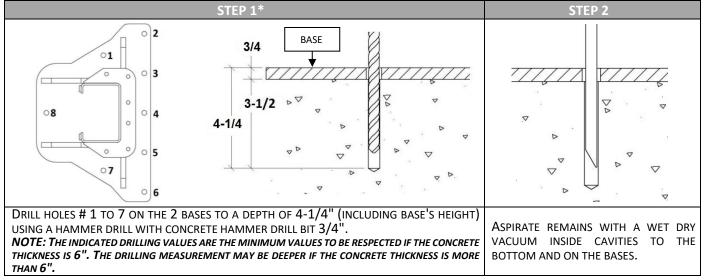


FIGURE 9 : ALIGNMENT ON THE SAME AXIS AND PARALLELISM

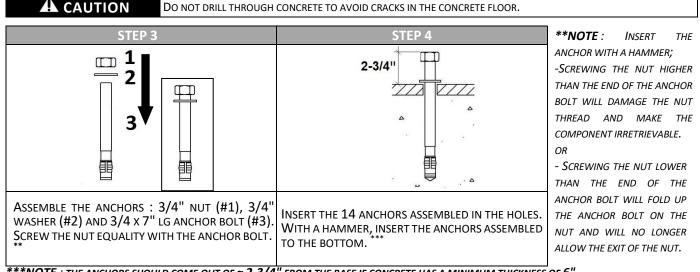
FIGURE 10 : MOVING METHOD OF COLUMNS.

ANCHOR INSTALLATION : 5.

PARALLELISM. SEE FIGURE 9.

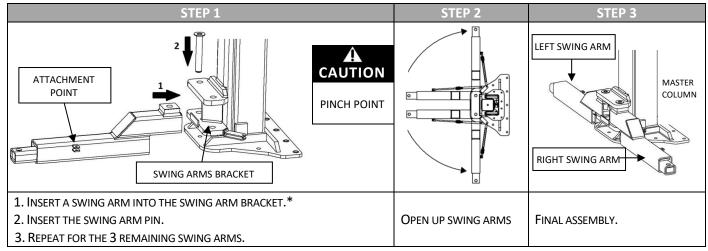


*NOTE : HOLE #8 (NOT ACCESSIBLE AND DISSIMULATED UNDER THE SWING ARM BRACKET) WILL BE DRILLED AT OPERATION TEST – TEST UNDER PRESSURE.



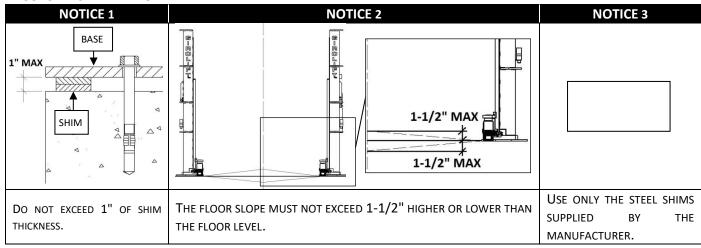
***NOTE : THE ANCHORS SHOULD COME OUT OF ≈ 2-3/4" FROM THE BASE IF CONCRETE HAS A MINIMUM THICKNESS OF 6". In case of concrete thickness bigger than 6", anchors should come out of at least 1" from the base in order to screw the nuts on THE ANCHOR BOLTS.

6. SWING ARMS INSTALLATION :

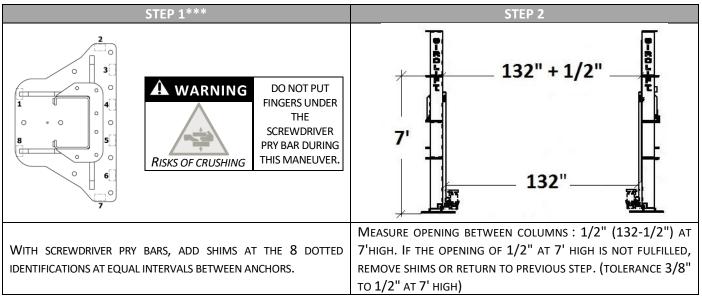


***NOTE** : Ensure that the attachment points of the swing arms point to the outside.





****NOTE :** COLUMNS IN VERTICAL POSITION MAY NOT BE LEVEL BUT THEY MUST BE ALIGNED BETWEEN THEM AND FOLLOW THE FLOOR LEVEL.

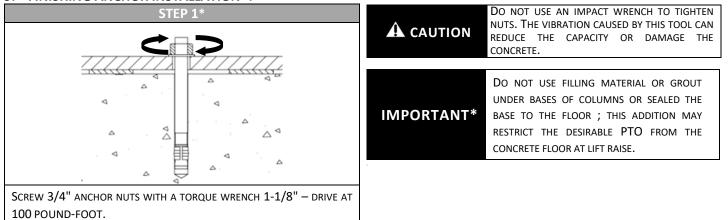


*****NOTE**: THE COLUMN BASE MUST NEVER BE IN DIRECT CONTACT WITH THE FLOOR. THE USE OF THE 8 DOTTED IDENTIFICATIONS IS REQUIRED.

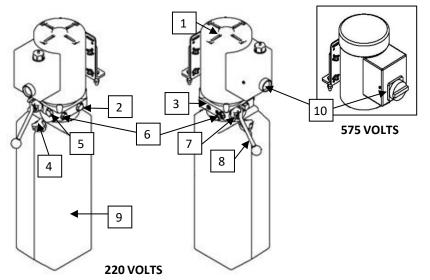
8. SWING ARMS LEVELLING :

STEP 1	STEP 2
SLAVE COLUMN	SLAVE SWING ARM
STRETCH 2 OPPOSED SWING ARMS AS CLOSE AS POSSIBLE.	Add or remove shims at dotted identification of step $1-$ column levelling so that the master swing arm is $1/4^{\prime\prime}$ higher than the slave swing arm.

9. FINISHING ANCHOR INSTALLATION^{*}:



POWER UNIT INSTALLATION



#	ITEM
1	ELECTRIC MOTOR
2	Relief cartridge cap*
3	TANK RETURN
4	HYDRAULIC VENT CAP
5	CHECK VALVE CARTRIDGE
6	Hydraulic inlet/outlet
7	RELEASE VALVE
8	PRESSURE RELEASE HANDLE
9	HYDRAULIC OIL TANK
10	ON/OFF SWITCH

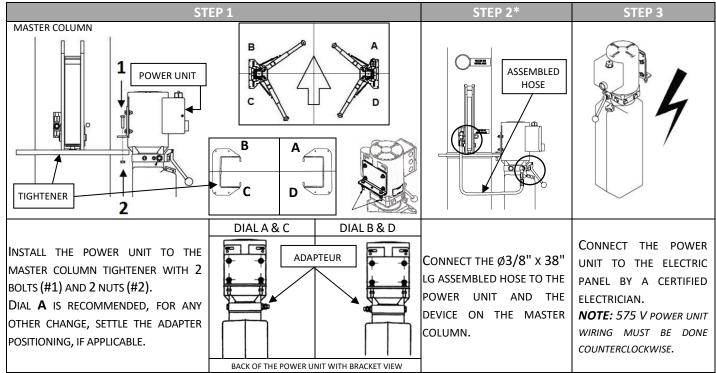
***NOTE :** A SAFETY SEAL IS APPLIED TO THIS COMPONENT. BREAKING THE SEAL VOIDS THE LIFT WARRANTY

	MANUFACTURER INSTRUCTIONS				
1	Use grade 32 hydraulic oil.				
2	INSTALL POWER UNIT AT LEAST 18" ABOVE GROUND.				
3	IT IS THE ELECTRICIAN RESPONSIBILITY TO DETERMINATE THE AMPERAGE (A) OF THE POWER UNIT IN ACCORDANCE WITH "TIME DELAY" OR STANDARD OVERLOAD PROTECTION INSTALLED.				
4	EACH GIROLIFT SHALL BE PROVIDED WITH AN INDEPENDENT CIRCUIT, INCLUDING OVERLOAD PROTECTION. OVERLOAD PROTECTION IS NOT SUPPLIED WITH THE GIROLIFT. THE CERTIFIED ELECTRICIAN IS REQUIRED TO CHOOSE THE APPROPRIATE DISCONNECT DEVICE. IF THE DISCONNECT DEVICE IS NOT INTEGRAL TO THE LIFT, THE GIROLIFT MUST BE EQUIPPED WITH AT LEAST ONE.				
5	EACH DISCONNECT DEVICE SHALL PROVIDE FOR ISOLATION SAFETY REQUIREMENTS FOR LOCKOUT/TAGOUT OF ENERGY SOURCES. SEE SECTION MAINTENANCE AND INSPECTION INSTRUCTIONS – LOCKOUT/TAGOUT.				
	" RISK OF EXPLOSION, THIS FOULPMENT HAS INTERNAL ARCING AND SPARKING PARTS WHICH SHOULD NOT BE EXPOSED TO				

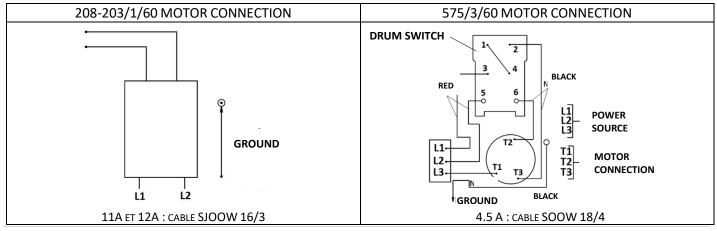
" RISK OF EXPLOSION. THIS EQUIPMENT HAS INTERNAL ARCING AND SPARKING PARTS WHICH SHOULD NOT BE EXPOSED TO FLAMMABLE VAPORS. THIS EQUIPMENT IS ONLY SUITABLE FOR INSTALLATION IN A GARAGE HAVING SUFFICIENT AIR CIRCULATION TO BE CONSIDERED A NON-HAZARDOUS LOCATION. »

10. TANK FILLING : WITH A FUNNEL, FILL THE TANK UP TO 1" OF THE HYDRAULIC VENT CAP. FIRMLY CLOSE THE HYDRAULIC VENT CAP.

11. POWER UNIT INSTALLATION :

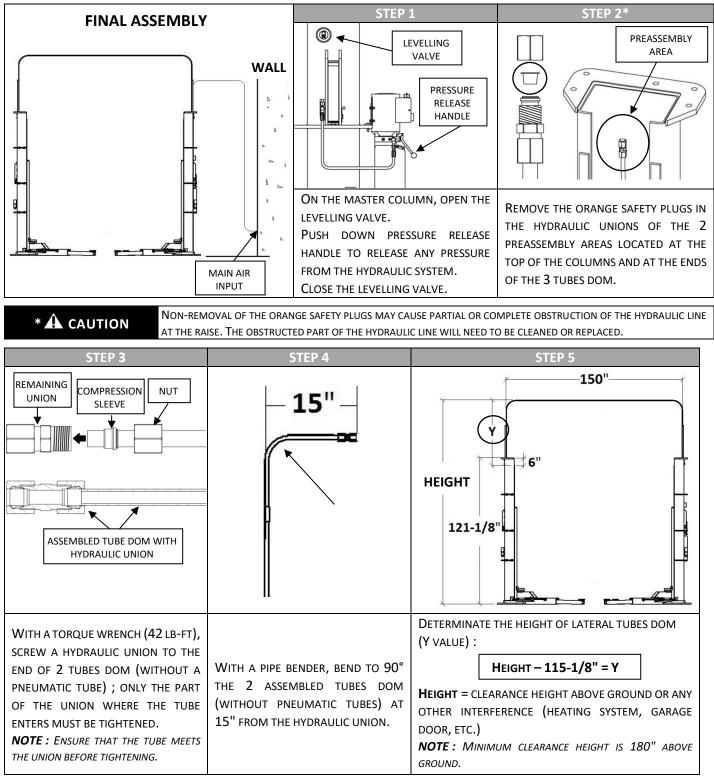


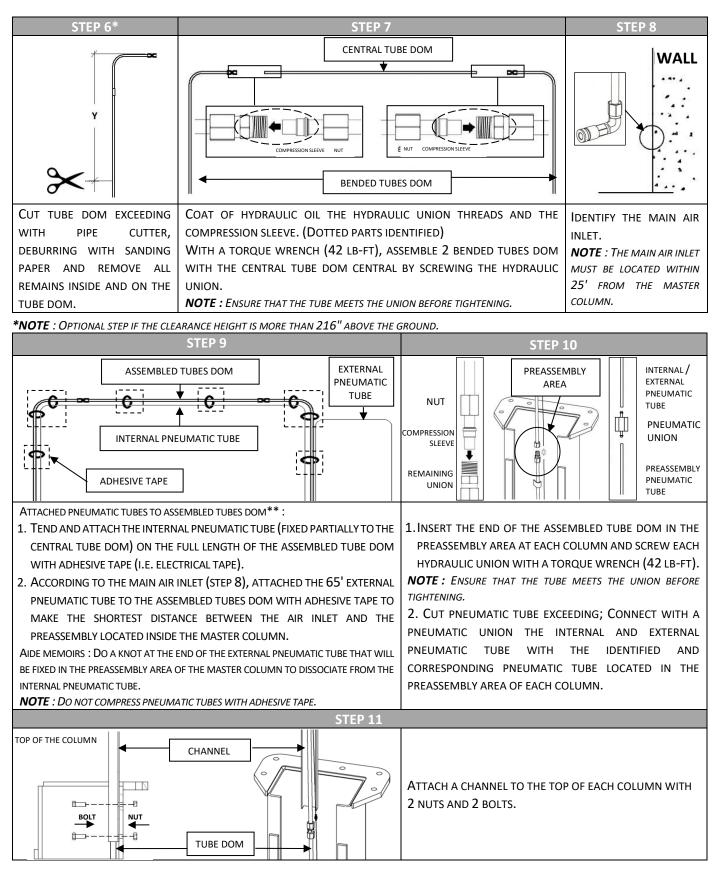
***NOTE :** DO NOT PUT ON TEFLON TAPE AT THE ENDS OF THE $\emptyset 3/8" \times 38"$ ASSEMBLED HOSE.

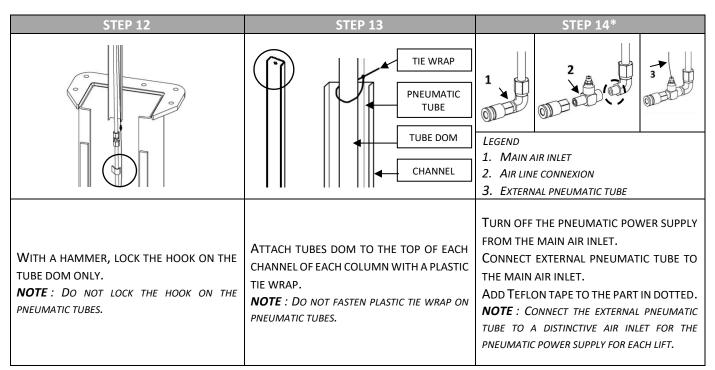


PNEUMATIC AND HYDRAULIC LINE INSTALLATION

12. PNEUMATIC AND HYDRAULIC LINE INSTALLATION:

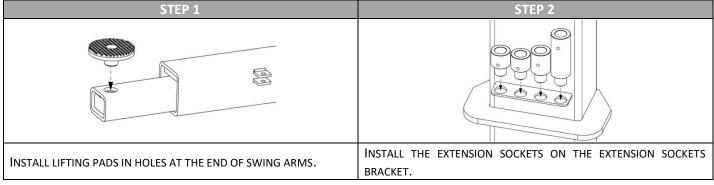






***NOTE** : IT IS THE OWNER'S RESPONSIBILITY TO HAVE A FUNCTIONAL AND ADEQUATE AIR INLET; EACH AIR INLET MUST HAVE A FILTER DRYER TO PROVIDE DRY AND CLEAN AIR TO EACH LIFT.

13. INSTALLATION FINISHING :



OPERATING TESTS

TO BLEED AIR OF HYDRAULIC CONDUITS

- 1. VERIFY THAT THE LEVELLING VALVE IS CLOSED.
- 2. ACTIVATE THE HYDRAULIC UNIT TO RAISE THE LIFTING ARMS APPROXIMATELY 4" ABOVE THE GROUND, THEN RELEASE.

NOTE : THE MASTER SWING ARMS WILL LIFT BEFORE THE SLAVE SIDE.

3. At the bottom of the slave column : with a flat screwdriver, unscrew (counterclockwise) of 1/2 turn the air bleeder. See *Figure 12*.

NOTE : TO LIMIT THE DAMAGE, PLACE RAGS ON THE SLAVE BASE UNDER THE AIR BLEEDER.

- 4. ON THE MASTER COLUMN, FULLY OPEN THE LEVELLING VALVE.
- 5. PUSH DOWN PRESSURE RELEASE HANDLE OF THE HYDRAULIC UNIT TO LEAN THE MASTER STOP BLOCK ON THE FIRST LOAD HOLDER AND LOWER THE SLAVE SWING ARM TO THE GROUND.

NOTE : AN AIR EXHAUST NOISE FROM THE HYDRAULIC SYSTEM WILL BE AUDIBLE BY THE AIR BLEEDER.

6. ACTIVATE THE HYDRAULIC UNIT TO RAISE THE LIFTING ARMS APPROXIMATELY 4" ABOVE THE GROUND.

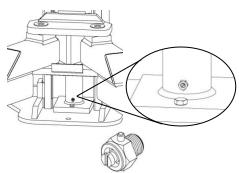


FIGURE 12 : AIR BLEEDER

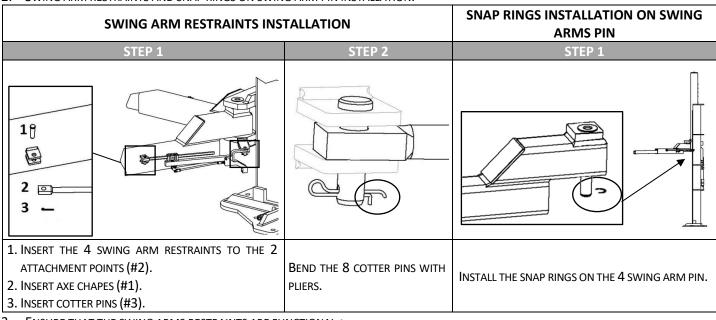
- 7. PUSH DOWN PRESSURE RELEASE HANDLE OF THE HYDRAULIC UNIT TO LOWER THE LIFTING ARMS COMPLETELY TO THE GROUND.
- 8. REPEAT STEPS 6 AND 7 UNTIL THE DESCENT OF SLAVE SWING ARMS IS FLUENT (ABOUT 2 OR 3 TIMES).
- 9. ACTIVATE THE HYDRAULIC UNIT TO RAISE THE LIFTING ARMS APPROXIMATELY 4" ABOVE THE GROUND
- 10. WITH A FLAT SCREWDRIVER, CLOSE THE AIR BLEEDER IN CLOCKWISE.
- 11. ACTIVATE THE HYDRAULIC UNIT TO RAISE THE SLAVE SWING ARMS TO THE HEIGHT OF THE MASTERS.
- 12. CLOSE THE LEVELLING VALVE.
- 13. ACTIVATE THE HYDRAULIC UNIT TO RAISE THE LIFTING ARMS APPROXIMATELY 2" HIGHER.
- 14. Press the unlocking valve and then push down pressure release handle, both pressing them to lower the swing arms to the ground. See *Figure 13.*
- 15. VERIFY THE OIL LEVEL. ADD OIL AS NECESSARY. (UP TO 1/2" OF THE HYDRAULIC VENT CAP)

TEST UNDER PRESSURE

(SWING ARM RESTRAINT, SNAP RING AND 2 REMAINING ANCHOR INSTALLATION)

A WARNING IN NO CASE, THE OIL LEAKAGE TEST SHOULD BE PERFORMED ON AN EMPTY HYDRAULIC LINE.

- 1. ACTIVATE THE HYDRAULIC UNIT UNTIL THE SWING ARMS ARE AT WORKING HEIGHT.
- 2. Swing arm restraints and snap rings on swing arm pin installation.



- 3. Ensure that the swing arms restraints are functional :
 - 3.1 VERIFY IF THE AUTOMATIC LATCHING SYSTEM OF THE FOUR SWING ARMS RESTRAINT IS LOCKED.
 - 3.2 PUSH AND PULL ON THE SWING ARMS ; THE SWING ARMS MUST NOT MOVE.
- 4. ACTIVATE THE HYDRAULIC UNIT UNTIL THE LIFTING ARMS ARE AT THE MAXIMUM HEIGHT.
- 5. PUSH DOWN PRESSURE RELEASE HANDLE TO RELEASE PRESSURE OF HYDRAULIC SYSTEM.
- 6. OPEN THE LEVELLING VALVE COMPLETELY.
- 7. ACTIVATE THE HYDRAULIC UNIT AND MAINTAIN IT UNDER PRESSURE SO THAT THE SWING ARMS REMAIN AT THE MAXIMUM HEIGHT FOR AT LEAST 5 SECONDS.
- 8. VERIFY VISUALLY THE HYDRAULIC LINE (HYDRAULIC UNIT, CYLINDERS AND LINE BETWEEN COLUMNS) IS FREE OF OIL LEAKAGE.

A WARNING

HYDRAULIC OIL FROM THE HIGH-PRESSURE SYSTEM MAY PERFORATE THE SKIN OR CAUSE SERIOUS INJURY.

9. PUSH DOWN PRESSURE RELEASE HANDLE TO RELEASE PRESSURE OF HYDRAULIC SYSTEM.

- 10. VERIFY MANUALLY IF THE REAR PART OF BOTH CYLINDERS ARE FREE OF OIL LEAKAGE.
- 11. CLOSE THE LEVELLING VALVE COMPLETELY.

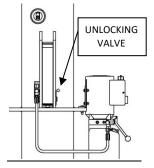


FIGURE 13 : UNLOCKING VALVE

- 12. PUSH DOWN PRESSURE RELEASE HANDLE OF THE HYDRAULIC UNIT TO LOWER THE SWING ARMS ON THE NEAREST LOAD HOLDER. (WITHOUT PRESSING THE UNLOCKING VALVE)
- 13. INSTALL THE 2 REMAINING ANCHORS AT POSITION # 8 AT EACH COLUMN BASE. RESUME STEPS #5 ANCHORS INSTALLATION AND #9 FINISHING ANCHORS INSTALLATION OF COLUMN INSTALLATION SECTION.
- 14. ACTIVATE THE HYDRAULIC UNIT TO RAISE THE LIFTING ARMS APPROXIMATELY 2" HIGHER.
- 15. PRESS THE UNLOCKING VALVE AND THEN PUSH DOWN PRESSURE RELEASE HANDLE, BOTH PRESSING THEM TO LOWER THE SWING ARMS TO THE GROUND.
- 16. CHECK FOR OIL LEAKAGE ON OVERALL HYDRAULIC LINE OF THE LIFT AND ON THE FLOOR.
- 17. VERIFY IF THE AUTOMATIC SWING ARM RESTRAINTS HAS UNENGAGED.

17.1 VERIFY IF THE AUTOMATIC LATCHING SYSTEM OF THE FOUR SWING ARMS RESTRAINT IS UNLOCKED.

17.2 PUSH AND PULL ON THE SWING ARMS; THE SWING ARMS SHOULD MOVE.

SWING ARMS LEVELLING

- 1. REMOVE LIFTING PADS AND SOCKET ADAPTORS FROM THE LIFTING ARMS.
- 2. ON THE MASTER POST, FULLY OPEN THE LEVELLING VALVE.
- 3. PUSH DOWN PRESSURE RELEASE HANDLE OF THE HYDRAULIC UNIT TO LOWER THE LIFTING ARMS COMPLETELY TO THE GROUND.
- 4. CLOSE THE LEVELLING VALVE COMPLETELY.

LEVELLING STEP

- ACTIVATE THE HYDRAULIC UNIT TO RAISE THE LIFTING ARMS APPROXIMATELY 8" ABOVE THE GROUND (A CLUNKING SOUND FROM THE RETRACTABLE LOAD HOLDERS SHOULD BE HEARD),
- 6. OPEN THE LEVELLING VALVE COMPLETELY.
- 7. PUSH DOWN PRESSURE RELEASE HANDLE TO LOWER THE LIFTING ARMS, SO AS TO REST THE STOP BLOCKS OF THE CARRIAGE DIRECTLY ONTO THE RETRACTABLE LOAD HOLDERS.
- 8. MAKE SURE THAT THE STOP BLOCK OF THE MASTER CARRIAGE IS CORRECTLY IMMOBILIZED ON THE RETRACTABLE LOAD HOLDERS. PRESS THE PNEUMATIC UNLOCKING VALVE:
- IF THE MASTER LOAD HOLDER REMAINS IMMOBILIZED : THE STOP BLOCK IS LOCKED.
- IF MASTER LOAD HOLDER MOVES, GO BACK TO STEP 7.
- 9. EXTEND THE LIFTING ARMS AS FAR AS POSSIBLE. SEE FIGURE 14.
- 10. Slave swing arms must be 1/4 "or () lower than the master lifting arms. See *Figure 15.*

NOTE : IF THE SLAVE SWING ARMS IS HIGHER THAN THE MASTER SIDE, CONTACT THE MANUFACTURER.

- 11. ACTIVATE THE HYDRAULIC UNIT IN SHORT INTERVAL (2 SEC) TO RAISE THE SLAVE SIDE UNTIL BOTH SIDES ARE AT THE SAME HEIGHT.
- 12. CLOSE THE LEVELLING VALVE COMPLETELY.

NOTE: DURING OPERATING TESTS, VIBRATION OR SAGGED DESCENT OF SWING ARMS INDICATES THAT THERE IS RESIDUAL AIR IN THE HYDRAULIC SYSTEM. IF IT IS THE CASE, RESUME STEPS 1 TO 15 – TO BLEED AIR OF HYDRAULIC CONDUITS OF OPERATING TESTS SECTION.

- 13. ACTIVATE THE POWER UNIT TO RAISE THE LIFTING ARMS APPROXIMATELY 2" TO DISENGAGE THE STOP BLOCKS OF THE LOAD HOLDERS
- 14. PRESS THE UNLOCKING VALVE AND THEN PUSH DOWN PRESSURE RELEASE HANDLE, BOTH PRESSING THEM TO LOWER THE SWING ARMS TO THE GROUND.

NOTE: A HYDRAULIC SYSTEM IS CONSIDERED "ZERO LEAK", ALTHOUGH A FEW DROPS MAY FLOW OUT WITH USE.

THE COLUMNS SYNCHRONISM IS BASED ON A CLOSED HYDRAULIC SYSTEM. HOWEVER, WHEN A HYDRAULIC SYSTEM INDUCES THE PARTS MOVEMENT, SO-CALLED "NORMAL" OIL LOSSES CAN OCCUR DURING THE LIFT OPERATION AND CAN LEAD TO HYDRAULIC SYSTEM DESYNCHRONIZATION.

IT IS IMPORTANT TO ALWAYS LEAN THE CARRIAGES STOP BLOCKS ON THE LOAD HOLDERS TO SLOW DOWN THE SWING ARMS DESYNCHRONISM.

It is recommended to proceed to the swing arms levelling of the lift as needed.

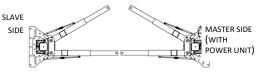
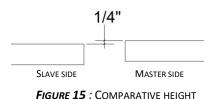


FIGURE 14 : SWING ARMS EXTENDED





OPERATING TEST WITH A TYPICAL VEHICLE

1. SELECT A TYPICAL VEHICLE WITH A WEIGHT AS CLOSE AS POSSIBLE TO THE LIFT CAPACITY. <u>VEHICLE ENTRANCE IN WORK BAY :</u>

- 2. RETRACT THE EXTENSION OF THE SWING ARMS TO THE MINIMUM AND OPEN AS FAR AS POSSIBLE TO CLEAR THE SPACE BETWEEN THE COLUMNS. SEE *FIGURE 16.*
- 3. DRIVE IN THE TYPICAL VEHICLE IN THE WORK BAY AND IMMOBILIZE IT WHEN THE CENTER OF GRAVITY IS LOCATED BETWEEN THE 2 COLUMNS.
- 4. PARK THE VEHICLE TRANSMISSION TO NEUTRAL POSITION. TURN OFF THE VEHICLE. LOWER THE CONDUCTOR SIDE WINDOW. CLOSE ALL THE DOORS.

NOTE: THE TRANSMISSION IS IN NEUTRAL POSITION TO EASILY MOVE THE VEHICLE WITHOUT STARTING THE ENGINE IF THE CENTER OF GRAVITY IS NOT WELL CENTRED.

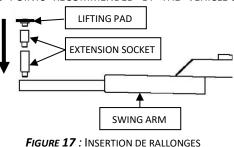
FIGURE 16 : SWING ARMS POSITION

IF THE FLOOR IS NOT LEVEL AND DOES NOT PERMIT TO LEAVE THE TRANSMISSION IN NEUTRAL POSITION WITHOUT A RISK OF INVOLUNTARY BEARING, ENGAGE THE HAND BREAK OR PUT WHEEL CHOCK.

MAXIMUM VEHICLE RAISING :

CAUTION

- 5. INSTALL THE LIFTING PADS AND EXTENSION SOCKETS IN THE HOLES AT THE END OF THE SWING ARMS
- 6. MOVE SWING ARMS BELOW THE VEHICLE.
- 7. ALIGN THE 4 LIFTING PADS UNDER LIFTING POINTS RECOMMENDED BY THE VEHICLE'S MANUFACTURER.
- 8. ACTIVATE THE HYDRAULIC UNIT TO RAISE THE TYPICAL VEHICLE TIRES ABOUT 1" ABOVE THE GROUND.
- 9. VERIFY IF THE 4 LIFTING PADS ARE COMPLETELY IN CONTACT WITH THE LIFTING POINTS RECOMMENDED BY THE VEHICLE'S MANUFACTURER. PUSH LATERALLY ON THE VEHICLE TO CHECK ITS STABILITY AND LEVELLING ; THE VEHICLE MUST BE STABLE AND LEVELLED. IF IT IS NOT THE CASE :
 - **9.1** PUSH DOWN PRESSURE RELEASE HANDLE TO LOWER THE LIFTING ARMS TO THE GROUND.
 - **9.2** Adjust the height of the lifting pads by adding or removing extension sockets to put the vehicle up at level and to have the shortest distance between lifting pads and the lifting points recommended by the vehicle's manufacturer. See *Figure 17.*



9.3 RESUME STEPS 6 TO 9.

10. PUSH DOWN PRESSURE RELEASE HANDLE OF THE HYDRAULIC UNIT TO LOWER THE VEHICLE AND TO LEAN THE CARRIAGE STOP BLOCKS ON THE NEAREST LOAD HOLDER. (WITHOUT PRESSING THE UNLOCKING VALVE)

MAXIMUM VEHICLE DESCENT :(TO THE GROUND)

- 11. ACTIVATE THE HYDRAULIC UNIT TO RAISE THE VEHICLE OF 2" TO DISENGAGE THE STOPS BLOCKS FROM THE LOAD HOLDERS.
- 12. PRESS THE UNLOCKING VALVE AND THEN PUSH DOWN PRESSURE RELEASE HANDLE, BOTH PRESSING THEM TO LOWER THE SWING ARMS TO THE GROUND.

VEHICLE EXIT FROM WORK BAY :

- 13. RETRACT THE EXTENSION OF THE SWING ARMS TO THE MINIMUM AND OPEN AS FAR AS POSSIBLE TO CLEAR THE SPACE BETWEEN THE COLUMNS. SEE *FIGURE 16.*
- 14. DRIVE OUT THE TYPICAL VEHICLE OUT OF THE WORK BAY.
- 15. CHECK FOR OIL LEAKAGE ON OVERALL HYDRAULIC LINE OF THE LIFT AND ON THE FLOOR.

INSTALLER : *RETURN THIS MANUAL WITH OTHER INSTRUCTIONAL MATERIALS FURNISHED WITH THE LIFT AND GIVE TO OWNER/USER/EMPLOYER.*

OPERATING INSTRUCTIONS

REFER TO : ANSI/ALI ALOIM :STANDARD FOR AUTOMOTIVE LIFTS - SAFETY REQUIREMENTS FOR OPERATION, INSPECTION AND SERVICE

OWNER / EMPLOYER RESPONSIBILITY

OWNER / EMPLOYER :

- Shall ensure that lift operators are qualified and that they are trained in the safe use and operation of the lift using the MANUFACTURER'S OPERATING INSTRUCTIONS: <u>ALI-SM, LIFTING IT RIGHT – A SAFETY MANUAL FROM THE AUTOMOTIVE LIFT INSTITUTE, ALI-ST, AUTOMOTIVE LIFT SAFETY TIPS, ANSI/ALI ALOIM, STANDARD FOR AUTOMOTIVE LIFT – SAFETY REQUIREMENT FOR OPERATION, INSPECTION AND MAINTENANCE, ALI/WL SERIES, <u>ALI UNIFORM WARNING LABEL DECALS/PLACARDS</u>; AND IN THE CASE OF FRAME ENGAGING LIFTS, <u>ALI-LP, QUICK REFERENCE GUIDE - VEHICLE LIFTING POINTS FOR FRAME ENGAGING LIFTS</u>.</u>
- Shall establish procedures to periodically inspect the lift in accordance with the lift manufacturer's instructions or <u>ANSI/ALI</u> <u>ALOIM</u>; and the Employer shall ensure that lift inspectors are qualified and that they are adequately trained in the inspection of the lift.
- Shall establish procedures to periodically maintain the lift in accordance with the lift manufacturer's instructions or <u>ANSI/ALI</u> <u>ALOIM</u>; and the Employer Shall ensure that lift maintenance personnel are qualified and that they are adequately trained in the maintenance of the lift.
- SHALL MAINTAIN THE PERIODIC INSPECTION AND MAINTENANCE RECORDS RECOMMENDED BY THE MANUFACTURER OR <u>ANSI/ALL ALOIM</u>.
- SHALL DISPLAY THE LIFT MANUFACTURER'S OPERATING INSTRUCTIONS, <u>ALI/SM</u>, <u>ALI/ST</u>, <u>ANSI/ALI ALOIM</u>; AND IN THE CASE OF FRAME ENGAGING LIFTS, <u>ALI/LP-GUIDE</u>, IN A CONSPICUOUS LOCATION IN THE LIFT AREA CONVENIENT TO THE OPERATOR.
- SHALL PROVIDE NECESSARY LOCKOUT/TAG OUT MEANS FOR ENERGY SOURCES PER <u>ANSI Z244.1 SAFETY REQUIREMENTS FOR THE</u> <u>LOCKOUT/TAGOUT OF ENERGY SOURCES</u>, BEFORE BEGINNING ANY LIFT REPAIRS.
- \square Shall not modify the lift in any manner without the prior written consent of the manufacturer.
- Shall ensure that replace worn, damaged or broken parts with parts approved by the original equipment manufacturer or with parts meeting original manufacturer specifications.

IMPORTANT SAFETY INSTRUCTIONS

- 1. READ ALL INSTRUCTIONS.
- INSPECT THE LIFT DAILY AND MONTHLY. NEVER OPERATE THE LIFT IF IT IS MALFUNCTIONS OR HAS BROKEN OR DAMAGED PARTS. USE ONLY LIFT PLANNED SERVICE PERSONNEL AND GENUINE PARTS TO MAKE REPAIRS.
- THROUGHLY TRAIN ALL EMPLOYEES IN USE AND CARE OF LIFT, USING MANUFACTURER INSTALLATION AND OPERATING INSTRUCTIONS MANUAL AND <u>ALI/SM</u> – LIFTING IT RIGHT AND <u>ALI/ST</u> – SAFETY TIPS SUPPLIED WITH THE LIFT.
- 4. NEVER ALLOW UNAUTHORIZED OR UNTRAINED PERSON PERSONS TO POSITION VEHICLE OR OPERATE LIFT.
- 5. PROHIBIT UNAUTHORIZED PERSON FROM BEING IN SHOP AREA WHILE LIFT IS IN USE.

NOTE : SINCE 1994, AUTOMOTIVE'S MANUFACTURERS MAY HAVE IDENTIFIED THEIR RECOMMENDED LIFTING POINTS ON VEHICLES. THE POINTS ARE IDENTIFIABLE ON A LABEL ON THE VERTICAL LOCK FACE PLATE OF THE FRONT PASSENGER SIDE DOOR, IN GLOVE BOX, OR UNDER THE HOOD (SAE J2184 – VEHICLE LIFT POINTS FOR SERVICE GARAGE LIFTING).



THE LIFTING POINTS ARE IDENTIFIED BY HOLES, BOSSES, AND/OR DEPRESSIONS IN THE SHAPE OF AN EQUILATERAL TRIANGLE OR A SUPPLEMENTAL, SUCH AS A LIFT PAD, IDENTICAL TO THE TRIANGLE UNDER CAR BODY. REFER TO <u>ALI/LP-GUIDE</u> OF THE LAST **20** YEARS CAR MODELS. SEE **FIGURE 18.**

- 6. NEVER EXCEED 12" HIGH OF EXTENSION SOCKETS. SEE FIGURE 19.
- 7. MAKE SURE LIFTING POINTS UNDER THE VEHICLE ARE FREE OF RUST, ICE, OIL OR BREAKAGE.
- 8. LOAD VEHICLE CAREFULLY. POSITION LIFT ADAPTERS TO CONTACT AT THE VEHICLE MANUFACTURER'S RECOMMENDED LIFT POINTS. RAISE LIFT UNTIL ADAPTERS CONTACT VEHICLE. CHECK ADAPTERS TO SECURE CONTACT WITH VEHICLE. RAISE LIFT TO DESIRED WORKING HEIGHT.

NOTE : The center of gravity is the point between the front and rear of the vehicle where the weight is distributed equally. Each vehicle have a different center of gravity location due to weight distribution, wheel base, drive train's location and other factor such as cargo.

THE CENTER OF GRAVITY ON REAR-WHEEL DRIVE (RWD) PASSENGER CARS IS BELOW THE DRIVER'S SEAT. ON FRONT-WHEEL DRIVE (FWD) PASSENGER CARS, THE CENTER OF GRAVITY IS SLIGHTLY IN FRONT OF THE DRIVER'S SEAT.

- 9. Use the lift only for the purpose for which it was designed for.
- **10**. Always keep area lift free of tools, debris, grease or oil.
- 11. DO NOT REMOVE OR DISABLE SWING ARM RESTRAINTS.
- 12. DO NOT PERMIT ANYONE ON LIFT OR INSIDE VEHICLE WHEN IT IS EITHER BEING RAISED OR LOWERED.
- **13.** NEVER OVERLOAD LIFT. LIFT CAPACITY IS SHOWN ON THE NAMEPLATE AFFIXED TO THE LIFT.
- 14. Do not hit or run over lift arms or adapters. This could damage lift or vehicle. Before driving in or driving out the vehicle of the lift bay, position arms and adapters to provide unobstructed entrance onto lift.
- 15. ALL LIFT ACCESSORIES SUPPLIED SHOULD STRICTLY BE USED FOR THE SPECIFIED MODEL AND BE ALI CERTIFIED. THE USE OF LIFT ACCESSORIES OF ANOTHER BRAND AND/OR NON ALI CERTIFIED ON A GIROLIFT WILL VOID ALI CERTIFICATION AND CANADA HYDRAULIQUE EQUIPEMENT INC WARRANTY.
- **16.** DO NOT GO UNDER THE VEHICLE IF LOCKING LATCHES OF THE SWING ARM RESTRAINTS ARE NOT ENGAGED.
- **17.** DO NOT BLOCK OPEN OR OVERRIDE SELF-CLOSING LIFT CONTROLS; THEY ARE DESIGNED TO RETURN TO THE "OFF" POSITION OR NEUTRAL POSITION WHEN RELEASED.
- 18. BEFORE LIFTING AN UNUSUAL VEHICLE (LIMOUSINE, RV'S, LONG WHEELBASE AND SHORT WHEELBASE VEHICLES, ETC.) OR USE SPECIAL ADAPTERS, CONTACT THE LIFT MANUFACTURER.
- **19.** CARE MUST BE TAKEN AS BURNS CAN OCCUR FROM TOUCHING HOT PARTS.
- 20. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged until it has been examined by a trained service person.
- 21. Do not let a cord hang over the edge of the table, bench, or counter or come in contact with hot manifolds or moving fan blades.

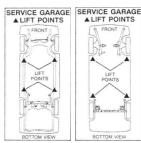


FIGURE 18 : TYPICAL LABEL DRAWING SEA J2184

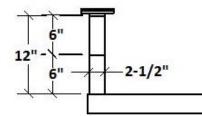


FIGURE 19 : MAXIMUM HEIGHT OF EXTENSION SOCKETS



Avoid excessive rocking of vehicle while on lift. © PICTOGRAPHS AND WARNING LABELS ARE COPYRIGHTED MATERIALS USED WITH PERMISSION FROM THE AUTOMOTIVE LIFT INSTITUTE.

- 22. IF AN EXTENSION CORD IS NECESSARY, A CORD WITH A CURRENT RATING EQUAL TO OR MORE THAN THAT OF THE EQUIPMENT SHOULD BE USED. CORDS RATED FOR LESS CURRENT THAN THE EQUIPMENT MAY OVERHEAT. CARE SHOULD BE TAKEN TO ARRANGE THE CORD SO THAT IT WILL NOT BE TRIPPED OVER OR PULLED.
- 23. ALWAYS UNPLUG EQUIPMENT FROM ELECTRICAL OUTLET WHEN NOT IN USE. NEVER USE THE CORD TO PULL THE PLUG FROM THE OUTLET. GRASP PLUG AND PULL TO DISCONNECT.
- 24. LET EQUIPMENT COOL COMPLETELY BEFORE PUTTING AWAY. LOOP CORD LOOSELY AROUND EQUIPMENT WHEN STORING.
- 25. TO REDUCE THE RISK OF FIRE, DO NOT OPERATE EQUIPMENT IN THE VICINITY OF OPEN CONTAINERS OF FLAMMABLE LIQUIDS (GASOLINE).
- 26. ADEQUATE VENTILATION SHOULD BE PROVIDED WHEN WORKING ON OPERATING INTERNAL COMBUSTION ENGINES.
- 27. KEEP HAIR, LOOSE CLOTHING, FINGERS, AND ALL PARTS OF BODY AWAY FROM MOVING PARTS.
- 28. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT USE ON WET SURFACES OR EXPOSE TO RAIN.
- 29. ALWAYS WEAR SAFETY GLASSES. EVERYDAY EYEGLASSES ONLY HAVE IMPACT RESISTANT LENSES, THEY ARE NOT SAFETY GLASSES.
- **30.** TO REDUCE THE RISK OF ELECTRIC SHOCK OR FIRE, NEVER OVERLOAD RECEPTACLES. REFER TO MARKINGS FOR THE PROPER LOAD ON RECEPTACLES.

SAVE THESE INSTRUCTIONS

NOTE : These safety instructions do not cover all risks of a lift use. If an injury has occurred or could have happened, determine the cause to prevent it. Always remain watchful.

FOR ADDITIONAL SAFETY INSTRUCTIONS : VARIOUS LIFT MODELS, LABELS, LIFTING PREPARATION, VEHICLE POSITIONING, VEHICLE LIFTING METHODS, LOAD CAPACITY, EMERGENCY PROCEDURES, VEHICLE LOWERING, LIFTING LIMITS, MAINTENANCE, WORKSHOP BEST PRACTICES. TRAINING AND OWNER / EMPLOYER RESPONSIBILITY REFER TO : <u>ALI/SM</u>, <u>ALI/ST</u>, <u>ALI/LP-GUIDE ANSI/ALI ALOIM</u> and <u>SAE J2184</u>.

LIFT OPERATION

NEVER USE A GIROLIFT IF THE LIFT :

	PROBLEMS	EXPLANATIONS
SLOWLY RISES WHEN NOT IN USE.		ELECTRICAL PROBLEM ON POWER UNIT THAT CAN NO LONGER BE CONTROLLED AT THE LIFT RAISING.
CAUTION	VIBRATES OR SHAKES UP AT	PRESENCE OF AIR IN THE HYDRAULIC LINE ; THE VIBRATIONS MAY MOVE OR DROP OFF THE VEHICLE OUT
CAUTION	THE RAISING.	OF THE LIFT.
	LEAKS AT THE HYDRAULIC	DEPENDING OF THE SEVERITY AND THE LOCATION OF THE LEAK, A REPAIR SHOULD BE PERFORMED BY A
	CONDUITS.	LIFT PLANNED SERVICE PERSONNEL.

VEHICLE ENTRANCE IN WORK BAY :

- 1. RETRACT THE EXTENSION OF THE SWING ARMS TO THE MINIMUM AND OPEN AS FAR AS POSSIBLE TO CLEAR THE SPACE BETWEEN THE COLUMNS. SEE *FIGURE 16.*
- 2. DRIVE IN THE VEHICLE IN THE WORK BAY AND IMMOBILIZE IT WHEN THE CENTER OF GRAVITY IS LOCATED BETWEEN THE 2 COLUMNS.
- 3. LEAVE THE VEHICLE TRANSMISSION TO NEUTRAL POSITION. TURN OFF THE VEHICLE. LOWER THE CONDUCTOR SIDE WINDOW. CLOSE THE DOORS.

NOTE: THE TRANSMISSION IS IN NEUTRAL POSITION TO EASILY MOVE THE VEHICLE WITHOUT STARTING THE ENGINE IF THE CENTER OF GRAVITY IS NOT WELL CENTRED.

A CAUTION

IF THE FLOOR IS NOT LEVEL AND DOES NOT PERMIT TO LEAVE THE TRANSMISSION IN NEUTRAL POSITION WITHOUT A RISK OF INVOLUNTARY BEARING, ENGAGE THE HAND BREAK OR PUT WHEEL CHOCK.

VEHICLE ASCENT:

- 4. INSTALL THE LIFTING PADS AND EXTENSION SOCKETS IN THE HOLES AT THE END OF THE SWING ARMS. SEE *FIGURE 17.*
- 5. MOVE SWING ARMS BELOW VEHICLE.
- 6. ALIGN THE 4 LIFTING PADS UNDER LIFTING POINTS RECOMMENDED BY VEHICLE'S MANUFACTURER. SEE *FIGURE 18.*
- **7.** ACTIVATE THE HYDRAULIC UNIT TO RAISE THE VEHICLE TIRES ABOUT 1" ABOVE THE GROUND. SEE *FIGURE 20.*

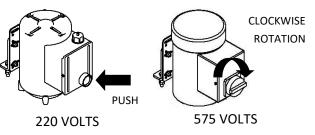


FIGURE 20 : POWER UNIT ACTIVATION

- 8. VERIFY IF THE 4 LIFTING PADS ARE COMPLETELY IN CONTACT WITH THE LIFTING POINTS RECOMMENDED BY THE VEHICLE'S MANUFACTURER. PUSH LATERALLY ON THE VEHICLE TO CHECK ITS STABILITY AND LEVELLING ; THE VEHICLE MUST BE STABLE AND LEVELLED. IF IT IS NOT THE CASE :
 - 8.1 PUSH DOWN PRESSURE RELEASE HANDLE TO LOWER THE LIFTING ARMS TO THE GROUND.
 - 8.2 Adjust the lifting pads height by adding or removing extension sockets to put the vehicle up to the level and to have the shortest distance between lifting pads and the lifting points recommended by the vehicle's manufacturer. See *Figure 17.*
 - 8.3 RESUME STEPS 5 TO 8.
- 9. ACTIVATE THE HYDRAULIC UNIT UP TO THE DESIRED HEIGHT.

LOAD MAINTAINING :

10. PUSH DOWN PRESSURE RELEASE HANDLE OF THE HYDRAULIC UNIT TO LOWER THE VEHICLE AND TO LEAN THE CARRIAGE STOP BLOCKS ON THE NEAREST LOAD HOLDER. (WITHOUT PRESSING THE UNLOCKING VALVE)

	LO	AD HOLDERS ARE USED TO :
	•	STABILIZE AND MAINTAIN THE VEHICLE AT LEVEL ON A MECHANICAL SUPPORT.
IMPORTANT		REDUCE EARLY WEAR OF COMPONENTS AND HYDRAULIC FITTINGS ; ALLOW THE HYDRAULIC SYSTEM TO BE FREE OF
		HYDRAULIC PRESSURE BETWEEN EACH USE.
	-	INCREASE USER AND EQUIPMENT SAFETY AROUND AND UNDER THE LIFT IN CASE OF A MECHANICAL BREAK.
17		

VEHICLE DESCENT :

- 11. ACTIVATE THE HYDRAULIC UNIT TO RAISE THE VEHICLE OF 2" TO DISENGAGE THE STOPS BLOCKS FROM THE LOAD HOLDERS.
- 12. PRESS THE UNLOCKING VALVE AND THEN PUSH DOWN PRESSURE RELEASE HANDLE, BOTH PRESSING THEM TO LOWER THE SWING ARMS TO INTERMEDIATE HEIGHT.
- 13. TO MAINTAIN THE LOAD, RESUME STEP 10.
- 14. PRESS THE UNLOCKING VALVE AND THEN PUSH DOWN PRESSURE RELEASE HANDLE, BOTH PRESSING THEM TO LOWER THE SWING ARMS TO THE GROUND.

VEHICLE EXIT FROM WORK BAY :

- 15. RETRACT THE EXTENSION OF THE SWING ARMS TO THE MINIMUM AND OPEN AS FAR AS POSSIBLE TO CLEAR THE SPACE BETWEEN THE COLUMNS. SEE *FIGURE 16.*
- **16.** DRIVE OUT THE OF THE WORK BAY.

MAINTENANCE AND INSPECTION INSTRUCTIONS

REFER TO : ANSI/ALI ALOIM :STANDARD FOR AUTOMOTIVE LIFTS - SAFETY REQUIREMENTS FOR OPERATION, INSPECTION AND SERVICE

MAINTENANCE INSTRUCTIONS

- BE FAMILIAR WITH LIFT MAINTENANCE PROCEDURES.
- PERMIT ONLY TRAINED LIFT SERVICE PERSONNEL TO PERFORM MAINTENANCE OF GIROLIFT.

WORKSHOP BEST PRACTICES

REFER TO : ANSI/ALI SM : LIFTING IT RIGHT – A SAFETY MANUAL FROM THE AUTOMOTIVE LIFT INSTITUTE

1. RAISE THE SWING ARM 3' ABOVE THE GROUND TO CLEAN THE FLOOR TO AVOID DUST IN THE SLOTS OF THE SWING ARMS, IN THE COLUMNS SLIDERS OR IN MECHANISM OF AUTOMATIC SWING ARM RESTRAINTS.

LIFT CLEANING

ACAUTION

NEVER USE WATER OR CORROSIVE PRODUCTS TO CLEAN; THESE SOLUTIONS ACCELERATE THE CORROSION AND CAN CONTRIBUTE TO PAINT PEELING.

LIGHT CLEANING

NOTE : Use this method if the lift is maintained daily.

- 1. DAILY CLEAN THE LIFT WITH A CLEAN AND DRY RAG, INCLUDING CYLINDER BASES AND COLUMN BASES.
- 2. LUBRICATE CYLINDER BASES AND COLUMN BASES. SEE MAINTENANCE AND INSPECTION INSTRUCTIONS LIFT LUBRICATION.

HEAVY-DUTY CLEANING

NOTE: Use this method if lift cleaning has been neglected or to remove stubborn residue

- 1. DAILY CLEAN THE LIFT WITH A CLEAN AND DRY RAG, INCLUDING CYLINDER BASES AND COLUMNS. SCRAPE IF NEEDED.
- 2. COAT CYLINDER BASES AND COLUMN BASES WITH BRAKE CLEANER TO DISLODGE STUBBORN RESIDUE.

ACAUTION QUICKLY REMOVE THE BRAKE CLEANER; THIS PRODUCT ACCELERATES PAINT PEELING.

- 3. CLEAN WITH A DRY AND CLEAN RAG.
- 4. LUBRICATE CYLINDER BASES AND COLUMN BASES. SEE MAINTENANCE AND INSPECTION INSTRUCTIONS LIFT LUBRICATION.

LIFT LUBRICATION

CAUTION

Use a dry lubricant with Teflon (e.g. Jig-A-LOO) to lubricate the inside of the four corners of the columns : The use of any other lubricant could cause an accumulation of particles, dirt and dust. This cluster becomes a paste over time and can make raising and lowering of the columns difficult.

GENERAL LUBRICATION

- 1. CLEAN THE LIFT COMPONENTS BEFOREHAND. SEE MAINTENANCE AND INSPECTION INSTRUCTIONS SECTION LIFT CLEANING.
- 2. LUBRICATE THE LIFT WITH A DRY TEFLON-BASED LUBRICANT: THE 4 INSIDE CORNERS OF THE COLUMNS FROM TOP TO BOTTOM, AND UNDER THE MALE PART OF LIFTING ARMS IN HIS EXTENDED POSITION.

BASES OF THE CYLINDER AND BASES COLUMNS LUBRICATION

- 1. CLEAN THE BASES OF THE CYLINDERS AND THE BASES OF THE COLUMNS BEFOREHAND. SEE MAINTENANCE AND INSPECTION INSTRUCTIONS – LIFT CLEANING.
- 2. LUBRICATE THE EDGE BETWEEN THE CYLINDER BASE AND COLUMN BASES, AND THE BOLT OF THE CYLINDER BASE WITH AUTOMATIC TRANSMISSION OIL. SEE **FIGURE 21** IN DOTTED LINE.

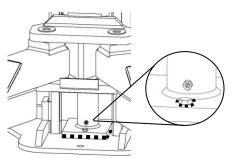


FIGURE 21 : CYLINDER BASE LUBRICATION

DAILY MAINTENANCE

NOTE : User maintenance form for 2 post lift available at ANNEX 2.

1. VISUAL COMPLIANCE OF ANCHORS : VISUALLY ENSURE ALL ANCHOR NUTS AND WASHERS ARE FULLY IN CONTACT WITH THE COLUMN BASES.

IN CASE OF NON-COMPLIANCE : REAPPLY THE TIGHTENING TORQUE OF 100 POUND-FEET ON ALL 3/4" ANCHORS.

NOTE : IF ANCHORS MUST BE TIGHTENED MORE THAN ONCE BETWEEN THE ANNUAL INSPECTION, CONTACT THE MANUFACTURER. DO NOT TIGHTEN ANCHORS USELESSLY.

2. VISUAL FLOOR COMPLIANCE : ENSURE VISUALLY THAT THE ANCHORS ARE MORE THAN 6" FROM A SIGN OF FLOOR FATIGUE (CRACKS, HEAVE, DEFORMATION, ETC.).

IN CASE OF NON-COMPLIANCE : CONTACT THE LIFT MANUFACTURER.

NOTE : KEEP A RECORD OF THE CONDITION OF THE FLOOR TO FOLLOW THE EVOLUTION OF THE FLOOR WEAKNESS.

3. VISUAL COMPLIANCE OF THE HYDRAULIC SYSTEM : VISUALLY VERIFY THAT THERE IS NO APPARENT OIL LEAKS ON THE HYDRAULIC SYSTEM : HYDRAULIC LINES, CYLINDERS AND POWER UNIT.

IN CASE OF NON-COMPLIANCE : REFER TO TROUBLESHOOTING - OIL LEAKAGE.

NOTE : CONTACT THE MANUFACTURER IF THE LIFT REQUIRES FREQUENT SWING ARM LEVELLING.

4. Component compliance : Visually ensure that lift components are not deformed, cracked, damaged or worn : swing arms, swing arm restraint, lifting pad & rubber, extension sockets, columns, carriage, power unit, cylinders, hydraulic line and load holding devises.

IN CASE OF NON-COMPLIANCE : REPLACE THE PART IMMEDIATELY OR CONTACT A LIFT PLANNED SERVICE PERSONNEL.

ACAUTION NEVER ATTEMPT TO STRAIGHTEN TO CORRECT ANY DEFECTIVE LIFT COMPONENTS, THIS ACTION COULD WEAKEN IT MORE.

- 5. SWING ARM RESTRAINTS COMPLIANCE : ENSURE SWING ARM RESTRAINTS ARE FUNCTIONAL AND IN GOOD CONDITION :
 - 5.1 RAISE LIFT AT LEAST 2-1/2" ABOVE THE GROUND.
 - 5.2 CHECK IF THE AUTOMATIC LOCKING SYSTEM OF THE FOUR SWING ARM RESTRAINT LOCKS.
 - 5.3 PUSH AND PULL SWING ARM RESTRAINT ; THE SWING ARM RESTRAINT MUST NOT MOVE.

IN CASE OF NON-COMPLIANCE : IMMEDIATELY REPLACE THE DEFECTIVE SWING ARM RESTRAINT.

6. BASE CLEANLINESS : ENSURE THAT CYLINDER BASES AND INSIDE OF COLUMNS ARE CLEAN AND LUBRICATED. IN CASE OF NON-COMPLIANCE : REFER TO MAINTENANCE AND INSPECTION INSTRUCTIONS SECTION – LIFT CLEANING AND LIFT LUBRICATION

NOTE : PROPER CLEANING AND LUBRICATION OF CYLINDER BASES AND COLUMN BASES PREVENTS CORROSION AND HELP OIL LEAKAGE DETECTION FROM CYLINDERS.

MONTHLY MAINTENANCE

1. MECHANICAL COMPLIANCE OF ANCHORS : MANUALLY CHECK THE TIGHTENING OF THE ANCHOR NUTS ; IT SHOULD NOT BE POSSIBLE TO UNSCREW THEM.

IN CASE OF NON-COMPLIANCE : REAPPLY THE TIGHTENING TORQUE OF 100 POUND-FEET ON ALL 3/4" ANCHORS.

NOTE : IF ANCHORS MUST BE TIGHTENED MORE THAN ONCE BETWEEN THE ANNUAL INSPECTION, CONTACT THE MANUFACTURER. DO NOT TIGHTEN ANCHORS USELESSLY.

2. Structural and welding compliance : Examine the structural components and welds of the lift for signs of worn, deformation, cracking or damage.

IN CASE OF NON-COMPLIANCE : IMMEDIATELY REPLACE THE PART OR CONTACT A LIFT PLANNED SERVICE PERSONNEL.

3. Swing arm deformation evaluation : Verify swing arm deformation. Refer to ANNEX 3.

IN CASE OF NON-COMPLIANCE : IMMEDIATELY REPLACE THE SWING ARM OR CONTACT A LIFT PLANNED SERVICE PERSONNEL.

4. LABELS AND DOCUMENTATION COMPLIANCE : VERIFY THAT LABELS AND COVERS OR GUARDS ARE AFFIXED TO THE LIFT AND THE APPROPRIATE DOCUMENTS ARE IN THE WORK BAY. REFER TO ANNEX 1.

IN CASE OF NON-COMPLIANCE : OBTAIN THE MISSING ARTICLE BY CONTACTING THE MANUFACTURER.

NOTE: LABELS ON LIFT PROVIDE BASIC INFORMATION ONLY. THE SAFETY INSTRUCTIONS ARE MORE DETAILED IN THE INSTALLATION AND OPERATING INSTRUCTIONS SECTION – IMPORTANT SAFETY INSTRUCTIONS.

5. LUBRICATION : LUBRICATE LIFT. REFER TO MAINTENANCE AND INSPECTION INSTRUCTIONS SECTION – LIFT LUBRICATION.

LIFT OPERATIONAL TEST

6. LOAD HOLDING DEVISES COMPLIANCE : VERIFY THE CONFORMITY OF THE ENGAGEMENT AND DISENGAGEMENT OF THE LOAD HOLDING DEVISES.

ENGAGEMENT :

- 6.1 ACTIVATE THE HYDRAULIC UNIT TO RAISE THE LIFTING ARMS APPROXIMATELY 8" ABOVE THE GROUND (A CLUNKING SOUND FROM THE RETRACTABLE LOAD HOLDERS SHOULD BE HEARD).
- 6.2 PUSH DOWN PRESSURE RELEASE HANDLE TO LOWER THE LIFTING ARMS, SO AS TO REST THE STOP BLOCK OF THE MASTER CARRIAGE DIRECTLY ONTO THE MASTER RETRACTABLE LOAD HOLDER. MAKE SURE THAT THE MASTER STOP BLOCK OF THE CARRIAGE IS CORRECTLY IMMOBILIZED ON THE RETRACTABLE LOAD HOLDER. PRESS THE PNEUMATIC UNLOCKING VALVE :
- IF THE MASTER RETRACTABLE LOAD HOLDER REMAINS IMMOBILIZED: THE STOP BLOCK IS LOCKED. MANUALLY CHECKED THE ENGAGEMENT OF THE MASTER LOAD HOLDER.
- IF THE LOAD HOLDER DISENGAGES (AUDIBLE NOISE FROM MASTER LOAD HOLDER), REPEAT STEP 5.2.

NOTE : The slave load holder should not be engaged without weight. If the slave load holder is engaged, resume **OPERATING TESTS** section – Swing arms levelling.

DISENGAGEMENT :

- 6.3 ACTIVATE THE POWER UNIT TO RAISE THE LIFTING ARMS APPROXIMATELY 2" TO DISENGAGE THE STOP BLOCK FROM THE LOAD HOLDERS.
- 6.4 Press the UNLOCKING VALVE AND THEN LOWER THE RELEASE HANDLE BY BOTH KEEPING THEM TO LOWER THE LIFTING ARMS TO THE GROUND.

IN CASE OF NON-COMPLIANCE : IMMEDIATELY REPLACE THE PART OR CONTACT A LIFT PLANNED SERVICE PERSONNEL.

7. COMPLETE CYCLE OF ELEVATION : DO A COMPLETE CYCLE OF ELEVATION. VERIFY THAT THE LIFT IS WORKING PROPERLY. IDENTIFY DEFORMITIES OR ABNORMAL NOISES.

IN CASE OF NON-COMPLIANCE : IMMEDIATELY REPLACE THE PART OR CONTACT A LIFT PLANNED SERVICE PERSONNEL.

ANNUAL INSPECTION

THE LIFT MUST BE INSPECTED ANNUALLY BY A TRAINED AND EXTERNAL LIFT INSPECTOR.

TROUBLESHOOTING

#	PROBLEMS	CAUSES	SOLUTIONS
		22	0 VOLTS AND 575 VOLTS
		1. The motor is not connected to the required voltage (220 Volts or 575 Volts).	1. HAVE A CERTIFIED ELECTRICIAN TO CONNECT THE POWER UNIT WITH REQUIRED VOLTAGE.
		 2. The motor of the power unit is not powered supply : 2.1 The fuse is burned. 2.2 The circuit breaker is open. 	 2.1 Remplace the defective fuse. 2.2 Reset the circuit breaker on the master column and/or of the electrical panel.
		3. THE ON/OFF SWITCH IS DEFECTIVE.	3. HAVE A CERTIFIED ELECTRICIAN TO REPLACE THE ON/OFF SWITCH.
1	POWER UNIT	4. DEFECTIVE MOTOR ON POWER UNIT.	4. HAVE A CERTIFIED ELECTRICIAN TO VALIDATE THE DEFECT.
1	DOES NOT RUN	5. BROKEN OR DEFECTIVE MICROSWITCH.	5. REPLACE THE MICROSWITCH.
		6. The microswitch is moved from its base.	6. REPLACE THE MICROSWITCH IN ITS BASE.
		7. THE MOTOR DOES NOT STOP :	IMMEDIATELY TURN OFF THE CIRCUIT BREAKER :
		7.1 THE ON/OFF SWITCH IS DEFECTIVE	7.1 REPLACE DEFECTIVE SWITCH.
			220 VOLTS
		7.2 THE RELAY OF THE SWITCH IS DEFECTIVE.	IMMEDIATELY TURN OFF THE CIRCUIT BREAKER :
			7.2 REPLACE DEFECTIVE SWITCH.
		8. The circuit breaker is off.	8. TURN ON THE CIRCUIT BREAKER.
	POWER UNIT RUNS BUT THE LIFT DOES NOT RISE	1. The 3 phase motor of the power unit does not rotate in right direction (575 volts).	1. HAVE A CERTIFIED ELECTRICIAN TO VALIDATE THE DEFECT.
		 THE LEVELLING VALVE AND/OR CHECK VALVE ARE NOT CLOSED PROPERLY. 	 2.1 Clean release valve and/or check valve. If the problem persists ; 2.2 Replace defective release valve and/or check valve.
2		3. The lifting load is too high.	 3.2 VERIFY THE TOTAL LOAD OF THE VEHICLE. 3.3 REDUCE VEHICLE WEIGHT (TOOLBOX, LOAD, ETC.) TO RESPECT THE LOAD RATE.
		 THE MOTOR RUNS CORRECTLY, BUT THE PUMP DOES NOT PRIME. 	 4.1 VERIFY THE OIL LEVEL IN THE TANK WHEN THE SWING ARMS ARE ON THE GROUND. ADD OIL AS NEEDED (1" FROM THE AERATOR PLUG). IF THE PROBLEM PERSISTS ; 4.2 REPLACE THE DEFECTIVE POWER UNIT.
		1. Maladjustment	1. REFER TO SWING ARMS LEVELLING – OPERATING TESTS SECTION
	THE SWING ARMS ARE	 THE LEVELLING VALVE ONTO THE MASTER COLUMN IS NOT CLOSED PROPERLY. 	 2.1 Close the levelling valve and level the swing arms. Refer to Swing arms levelling – OPERATING TESTS section IF the problem persists ; 2.2 Replace defective levelling valve. Contact the lift manufacturer.
3	-	3. SWING ARMS ARE DEFORMED	3. REFER TO ANNEX 3 – ACCEPTABLE SWING ARMS DEFORMATION.
	DESYNCHRO- NIZED	4. SLAVE SWING ARMS COME TO THE GROUND BEFORE THE MASTER SWING ARMS.	 4.1 OPEN THE LEVELING VALVE. 4.2 ACTIVATE THE POWER UNIT TO LIFT THE SLAVE SWING ARMS TO THE SAME HEIGHT AS THE MASTER SWING ARMS. 4.3 CLOSE THE LEVELING VALVE. NOTE: CONTACT THE MANUFACTURER IF THE VEHICLE CANNOT BE LOWERED TO THE GROUND.
	THE LIFT GOES	 THE RELEASE VALVE AND/OR CHECK VALVE ARE NOT SEALED. 	 1.1 CLEAN RELEASE VALVE AND/OR CHECK VALVE. IF THE PROBLEM PERSISTS ; 1.2 REPLACE DEFECTIVE RELEASE VALVE AND/OR CHECK VALVE.
4	DOWN WITHOUT TOUCHING CONTROLS	2. THE LEVELLING VALVE ONTO THE MASTER COLUMN IS NOT CLOSED PROPERLY.	2.1CLOSE THE LEVELLING VALVE AND LEVEL THE SWING ARMS. REFER TO SWING ARMS LEVELLING – OPERATING TESTS SECTION IF THE PROBLEM PERSISTS ; 2.2REPLACE DEFECTIVE LEVELLING VALVE.
			2.3CONTACT THE LIFT MANUFACTURER.

#	PROBLEMS	CAUSES	SOLUTIONS
		1. Slave cylinder	 AN OIL OVERFLOW CAN BE OBSERVED ONLY ON THE SLAVE SIDE. THIS OVERFLOW CAN BE EXPLAINED BY THE FACT THAT THE CYLINDER SEALS CANNOT BE PERFECTLY SEALED. A SMALL AMOUNT OF OIL CAN ACCUMULATE IN THE INNER WALL OF THE CYLINDER AND CAN BE EVACUATED BY THE BREATHER (HOLE LOCATED AT THE TOP OF THE CYLINDER) AT RAISING WHEN THE LIFT REACHES A HIGHER HEIGHT THAN THE ONE NORMALLY USED. THE CYLINDER IS NOT DEFECTIVE. WIPE THE RESIDUAL OIL.
		2. MASTER CYLINDER	NOTE : IF THE SWING ARMS LEVELLING IS FREQUENT, A REPAIR MUST BE PERFORMED. 2. CONTACT LIFT MANUFACTURER.
5	OIL LEAKAGE*	3. Hydraulic fittings	3.1 TIGHTEN THE LEAKING FITTING OF THE HYDRAULIC SYSTEM. IF THE PROBLEM PERSISTS ; 3.2 REPLACE LEAKING FITTING.
		4. Air bleeder (Slave cylinder base)	 4.1 TIGHTEN THE LEAKING AIR BLEEDER. IF THE PROBLEM PERSISTS ; 4.2 REPLACE LEAKING AIR BLEEDER. NOTE : ADD TEFLON TAPE INTO THE TRAP THREADS OF AIR BLEEDER TO SEAL.
			LEVEL IN THE TANK WHEN THE SWING ARMS ARE ON THE GROUND. ADD OIL AS NEEDED (1" IG ARMS : SWING ARMS LEVELING – OPERATING TESTS SECTION
		1. THE RELEASE VALVE AND/OR CHECK VALVE ARE NOT CLOSED PROPERLY.	 1.1 Clean Release valve and/or check valve. IF the problem persists ; 1.2 Replace defective release valve and/or check valve.
6	THE LIFT CANNOT RISE RATED	2. THE VEHICLE CENTER OF GRAVITY IS NOT CENTRED	2. MOVE THE VEHICLE TO THE GROUND AND RECENTER THE CENTER OF GRAVITY.
	LOAD	3. PRESENCE OF A LUBRICANT OTHER THAN TEFLON-BASED DRY LUBRICANT (E.G. GREASE) IN THE INSIDE CORNERS OF COLUMNS.	3.1 CLEAN THE INSIDE SURFACES OF THE COLUMNS WITH A DEGREASER. 3.2 REFER TO LIFT CLEANING – MAINTENANCE AND INSPECTION INSTRUCTIONS SECTION.
	THE LOAD HOLDING DEVICES DO NOT WORK AT THE DESCENT	1. The load holders do not move freely.	 1.1 ACTIVATE THE POWER UNIT TO RISE THE LIFT OF 1" TO DISENGAGE THE STOPS BLOCKS FROM THE LOAD HOLDERS. 1.2 MANUALLY VERIFY THE MOVEMENT OF THE LOAD HOLDERS. 1.3 CLEAN OR RELEASE THE LOAD HOLDER. 1.4 REPLACE DEFECTIVE LOAD HOLDER.
7		2. NO PNEUMATIC PRESSURE	 VERIFY IF THE PNEUMATIC SUPPLY IS FUNCTIONAL. CUT OFF THE PIERCED PNEUMATIC TUBE PART. JOIN 2 HEALTHY PNEUMATIC TUBES BY
		3. AIR EVACUATES FROM PNEUMATIC TUBES.	USING AN AIR UNION.
		4. DEFECTIVE PNEUMATIC CYLINDER. 5. DEFECTIVE PNEUMATIC VALVE (UNLOCKING VALVE)	 REPLACE DEFECTIVE PNEUMATIC CYLINDER. REPLACE DEFECTIVE PNEUMATIC VALVES (UNLOCKING VALVE).
		1. REFER TO PROBLEMS 1-7 OF THIS DOCUMENT	 IF THE PROBLEM PERSISTS AND CANNOT BE RELATED TO ANY OF THE PROBLEMS 1 TO 7 OF THIS DOCUMENT, CONTACT THE LIFT MANUFACTURER OR A LIFT PLANNED SERVICE PERSONNEL.
		2. LOW OIL LEVEL IN THE TANK.	2. ADD OIL TO THE TANK. (1" FROM THE AERATOR PLUG).
8	THE LIFT IS INOPERATIVE IN RISE POSITION	3. The pressure coming from the Slave hydraulic circuit, since there is no load on the lift, is insufficient to activate the pilot valve in descent only. The Slave Carriage is lower than the Master Column one, while the Master Carriage is at its maximum elevation.	 3.1 OPEN THE LEVELING VALVE COMPLETELY. 3.2 ACTIVATE THE POWER UNIT BY PRESSING THE ON/OFF SWITCH OF THE POWER UNIT. ONLY THE SLAVE CARRIAGE WILL RISE. ONCE THE SLAVE CARRIAGE IS RAISED TO ITS MAXIMUM ELEVATION, HOLD THE ON/OFF SWITCH TO PUT THE PRESSURE BACK IN THE SYSTEM UNTIL THE MOTOR EMITS A NOISE INDICATING THAT IT HAS REACHED ITS FULL OPERATING PRESSURE (MAX 2 SEC). 3.3 CLOSE THE LEVELING VALVE COMPLETELY. NOTE: THE LEVELING VALVE MAY BE DIFFICULT TO CLOSE MANUALLY DUE TO THE HIGH HYDRAULIC PRESSURE IN THE SYSTEM. <u>DO NOT USE PLIERS OR ANY OTHER INSTRUMENTS</u> <u>TO CLOSE THE LEVELING VALVE.</u> 3.4 PRESS THE UNLOCKING VALVE AND THEN PUSH DOWN THE PRESSURE RELEASE HANDLE, BOTH PRESSING THEM TO LOWER THE SWING ARMS TO THE GROUND. 3.5 LEVEL THE SWING ARMS. SEE SWING ARMS LEVELING – OPERATING TESTS SECTION.
		4. The lift installation is not adequate	4. CONTACT THE LIFT INSTALLER OR THE LIFT MANUFACTURER.

LOCKOUT/TAGOUT

REFER TO ANSI Z244.1

PURPOSE

THIS PROCEDURE ESTABLISHES THE MINIMUM REQUIREMENTS FOR THE LOCKOUT OF THE ENERGY THAT COULD CAUSE INJURY TO PERSONNEL BY THE OPERATION OF LIFTS IN NEED OR BEING SERVICED. ALL EMPLOYEES SHALL COMPLY WITH THIS PROCEDURE.

RESPONSIBILITY

THE RESPONSIBILITY FOR ASSURING THAT THIS PROCEDURE IS FOLLOWED IS BINDING UPON ALL EMPLOYEES AND SERVICE PERSONNEL FROM OUTSIDE SERVICE COMPANIES (I.E., AUTHORIZED LIFT INSTALLERS, CONTRACTORS, ETC.). ALL EMPLOYEES SHALL BE INSTRUCTED IN THE SAFETY SIGNIFICANCE OF THE LOCKOUT PROCEDURE BY THE FACILITY OWNER/MANAGER. EACH NEW OR TRANSFERRED EMPLOYEE ALONG WITH VISITING OUTSIDE SERVICE PERSONNEL SHALL BE INSTRUCTED BY THE OWNER/MANAGER (OR ASSIGNED DESIGNEE) IN THE PURPOSE AND USE OF THE LOCKOUT PROCEDURE.

PREPARATION

EMPLOYEES AUTHORIZED TO PERFORM LOCKOUT SHALL ENSURE THAT THE APPROPRIATE ENERGY ISOLATING DEVICE (I.E., CIRCUIT BREAKER, FUSE, DISCONNECT, ETC.) IS IDENTIFIED FOR THE LIFT BEING LOCKED OUT. OTHER SUCH DEVICES FOR OTHER EQUIPMENT MAY BE LOCATED IN CLOSE PROXIMITY OF THE APPROPRIATE ENERGY ISOLATION DEVICE. IF THE IDENTITY OF THE DEVICE IS IN QUESTION, SEE THE SHOP SUPERVISOR FOR RESOLUTION. ASSURE THAT PROPER AUTHORIZATION IS RECEIVED PRIOR TO PERFORMING THE LOCKOUT PROCEDURE.

SEQUENCE OF LOCKOUT PROCEDURE :

- 1) NOTIFY ALL AFFECTED EMPLOYEES THAT A LOCKOUT IS BEING PERFORMED AND THE REASON FOR IT.
- 2) UNLOAD THE SUBJECT LIFT. SHUT IT DOWN AND ASSURE THE DISCONNECT SWITCH IS "OFF" IF ONE IS PROVIDED ON THE LIFT.
- 3) THE AUTHORIZED LOCKOUT PERSON OPERATES THE MAIN ENERGY ISOLATION DEVICE REMOVING POWER TO THE SUBJECT LIFT.
 - 3.1 IF THIS IS A LOCKABLE DEVICE, THE AUTHORIZED LOCKOUT PERSON PLACES THE ASSIGNED PADLOCK ON THE DEVICE TO PREVENT ITS UNINTENTIONAL REACTIVATION. AN APPROPRIATE TAG IS APPLIED STATING THE PERSON'S NAME, AT LEAST 3" x 6" IN SIZE, AN EASILY NOTICEABLE COLOR, AND STATES NOT TO OPERATE DEVICE OR REMOVE TAG.
 - **3.2** IF THIS DEVICE IS A NON-LOCKABLE CIRCUIT BREAKER OR FUSE, REPLACE WITH A "DUMMY" DEVICE AND TAG IT APPROPRIATELY AS MENTIONED ABOVE.
- 4) ATTEMPT TO OPERATE LIFT TO ASSURE THE LOCKOUT IS WORKING. BE SURE TO RETURN ANY SWITCHES TO THE "OFF" POSITION.

NOTE : DO NOT FORGET TO PUT THE SWITCHES BACK IN "OFF" POSITION.

5) THE EQUIPMENT IS NOW LOCKED OUT AND READY FOR THE REQUIRED MAINTENANCE OR SERVICE.

RESTORING EQUIPMENT TO SERVICE

- 1) ASSURE THE WORK ON THE LIFT IS COMPLETE AND THE AREA IS CLEAR OF TOOLS, VEHICLES, AND PERSONNEL.
- 2) At this point, the authorized person can remove the lock (or dummy circuit breaker or fuse) & tag and activate the energy isolating device so that the lift may again be placed into operation.

RULES FOR USING LOCKOUT PROCEDURE

Use the Lockout Procedure whenever the lift is being repaired or serviced, waiting for repair when current operation could cause possible injury to personnel, or for any other situation when unintentional operation could injure personnel. No attempt shall be made to operate the lift when the energy isolating device is locked out.

WARRANTY POLICY

The warranty is exclusive to the original owner of the Girolift and is non-transferable. This warranty is valid only if the product is installed, operated and maintained to the Installation & Operating Instructions manual and ANSI/ALI ALOIM – « Safety Requirements for Operation, Inspection and Maintenance » (latest version). Canada Hydraulique Equipement Inc reserves the right to disclaim any responsibility for the installation or repairs that have been attempted or performed by others. Any modification without the written consent of Canada Hydraulique Equipement Inc, misuse, damage, negligence or improper use completely voids the warranty.

THIS WARRANTY DOES NOT COVER NORMAL MAINTENANCE AND ADJUSTMENTS, NORMAL WEAR AND TEAR, LOSS OF PROFIT, LABOR AND TRANSPORTATION TIME FOR REPAIRS.

	WARRANTY DURATION	LABOR	
	FROM INVOICE DATE	FOR THE REPAIR	
STRUCTURAL COMPONENT	5 YEARS		
FUNCTIONAL PART		1 YEAR	
Power Unit	1 YEAR	L YEAR	
GIROLIFT BRAND ACCESSORY/ATTACHMENT			
REPLACEMENT PART	90 days	NI / A	
NON GIROLIFT BRAND ACCESSORY/ATTACHMENT	1 YEAR	N/A	

NOTE : STRUCTURAL COMPONENT (CARRIAGE, FIXED POST, SWING ARM, RAMP), FUNCTIONAL PART (HOSE, PIPE, ADAPTER, SEAL, FITTING, VALVE, CYLINDER, SWING ARM RESTRAINT), ACCESSORY/ATTACHMENT (JIB CRANE, FORK LIFT ADAPTERS, ROLLING JACK, STRUCTURE, ETC.)

THE MODEL AND SERIAL NUMBER OF THE LIFT MUST BE PROVIDED WITH ANY CLAIM. IN CASE OF A POWER UNIT PROBLEM, THE MODEL AND SERIAL NUMBER OF THE POWER UNIT MUST BE ALSO PROVIDED.

TRAVEL FOR WARRANTY REPAIRS IS INCLUDED WITHIN RADIUS OF **100** KM FROM CANADA HYDRAULIQUE EQUIPEMENT INC PLANT. A PRE-DETERMINED RATE FOR ANY ADDITIONAL KM TRAVELLED AND PREAPPROVED WILL BE CHARGED TO THE CUSTOMER. ADDITIONAL CHARGES WILL APPLY FOR ANY REPAIRS MADE BY OUR TECHNICIAN THAT DO NOT RELATE TO THE WARRANTY ISSUE. REPLACEMENT PART :

ALL CARRIER CHARGES ARE THE RESPONSIBILITY OF THE CUSTOMER. DEFECTIVE PART MUST FIRST BE SHIPPED TO OUR FACTORY FOR EXPERT EXAMINATION BY A CANADA HYDRAULIQUE EQUIPEMENT INC TECHNICIAN. ONCE THE DEFECT DIAGNOSTIC IS CONFIRMED, THE REPAIRED PART OR REPLACEMENT PART WILL BE SHIPPED TO THE COSTUMER. IF THE WAITING PERIOD DOES NOT PERMIT, THE REPLACEMENT PART WILL BE INVOICED AND PAID BEFORE BEING SHIPPED. A CREDIT WILL THEN BE ISSUED ON THE PART ONCE THE DEFECTIVE PART RETURNED TO OUR FACTORY AND IF THE PART INSPECTION IS PROVEN TO BE DEFECTIVE ; THIS WARRANTY DOES NOT COVER NON DEFECTIVE PART OR MISDIAGNOSIS.

TO APPLY THE WARRANTY, THE INSTALLATION REPORT MUST BE SENT WITHIN **30** DAYS AFTER THE INSTALLATION OF THE GIROLIFT².

THE CURRENT WARRANTY PREDOMINATES OVER ALL DOCUMENTATION OR WARRANTY POLICY ISSUED PREVIOUSLY.

THE WARRANTY POLICY IS APPLICABLE ONLY IF THE NECESSARY REPAIRS, DAILY AND MONTHLY MAINTENANCE AND ANNUAL INSPECTION HAVE BEEN MADE IN ACCORDANCE WITH THE RECOMMENDATIONS OF CANADA HYDRAULIQUE EQUIPMENT INC AND ANSI/ALI ALOIM. SUPPORTING EVIDENCE MAY BE REQUESTED.

CANADA HYDRAULIQUE EQUIPEMENT INC'S DECISION REPRESENTS THE FINAL AUTHORITY RESERVES THE RIGHT TO CANCEL THE GIROLIFT OWNER'S WARRANTY IF THE CONDITIONS ARE NOT MET.

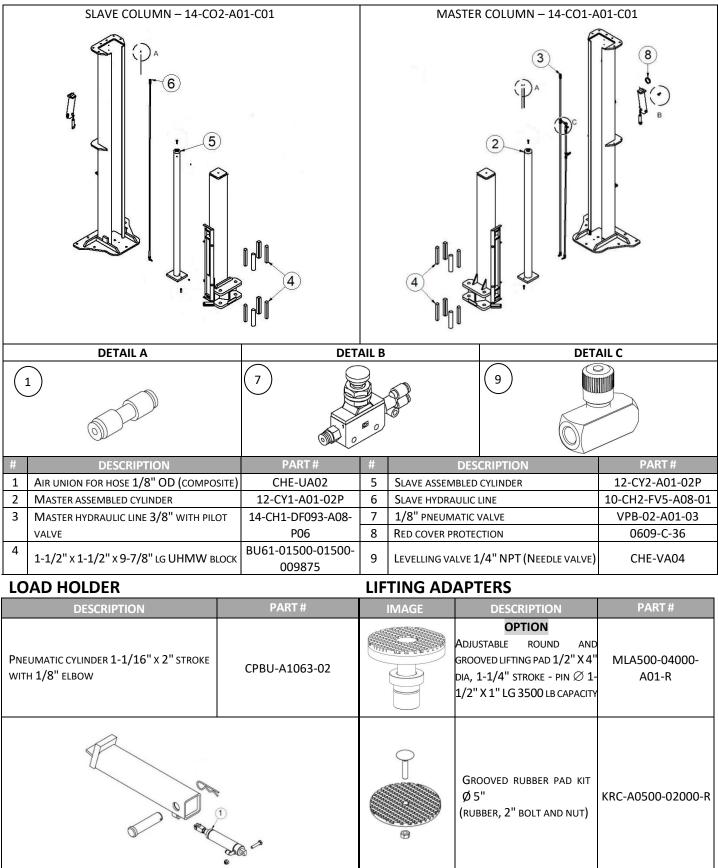
² STANDARD FOR AUTOMOTIVE LIFTS – <u>SAFETY REQUIREMENTS FOR INSTALLATION AND SERVICE (R2015)</u>, APPENDIX B : INSTALLATION REPORT.

PART LIST

HT-14000-SYM-C01 GIROLIFT

	11-14000	-STIVI-CUI GI										
	DETAIL A	DETAIL B	DETAIL C	DETAIL D	D	ETAIL E	DETAIL F	DETAIL	G DETAIL H			
9			4		(13)		(10)	(8)				
#		DESCRIPTION		PART #	#		DESCRIPTION		PART #			
			222.1	14-00-13_0-S06		HYDRAULIC	LINE BETWEEN COLUI	MNS	14-CHEC-A08-01			
1	POWER UNIT A	ASSEMBLED	220 V	14-00-13_0-R06	11	1/2" X 0.06	65" X 120" lg Tube	DOM	CHM11-00500-0065- 120000			
L			575 V	14-00-13_1-S06		1/8" x 31'	LG CLEAR POLYURET	HANE TUBING	TPU-02-NL			
2	RIGHT ASSEME	BLED SWING ARM 37-1	L/4" à 58" lg	14-BLD-A01-01	12	2" X 1" X 4 (WITH 2 X 8 3/8")	GEN-CCF-A01-01					
3	LEFT ASSEMBL	ed swing arm 37-1/	'4" à 58" lg	14-BLG-A01-01	13	DIA 2-1/16 3500 LB CA	ROUND AND GROOVED LIFTING PAD $3/8" \times 5"$ DIA 2-1/16" HAUT - PIN \varnothing 1-1/2" X 1" LG ML375-7 3500 LB CAPACITY					
4		3/8" X 38" LG HOSE		BUH-06-38-A01-01	14	Ø2-1/2" X	(2" LG — PIN 1-1/2"	LG EXTENSION	RA25-02000-TS			
5	MASTER ASSE	MBLED COLUMN		14-CO1-A01-CO1	15	SOCKET	(3" LG - PIN 1-1/2"		RA25-03000-TS			
6	SALVE ASSEME	BLED COLUMN		14-CO2-A01-C01	16	Ø 2-1/2" X SOCKET	(6" LG - PIN 1-1/2"	LG EXTENSION	RA25-06000-TS			
7	Ø1-1/2 x 9-3	3/4" LG SWING ARM P	IN	14-PBL-S01-01P	17		INE CONNECTION "TE	RLA-02-A01-01				
8		3/4" X 7" LG AND SHI		20-KA-A01-01		1/8" x 65' ı	G CLEAR POLYURET	HANE TUBING	TPU-02-NL-065			
9	TUBE 1/2" X	TUBE 1/2" HYDRAULIC	UNION	CHE-UHF-08-08	19	BLACK SNA FREE DIAMI	0661-SNR2000150					
10	20" AUTOMAT	TIC SWING ARM RESTRA		14-BRA20-A01-01	1		/					



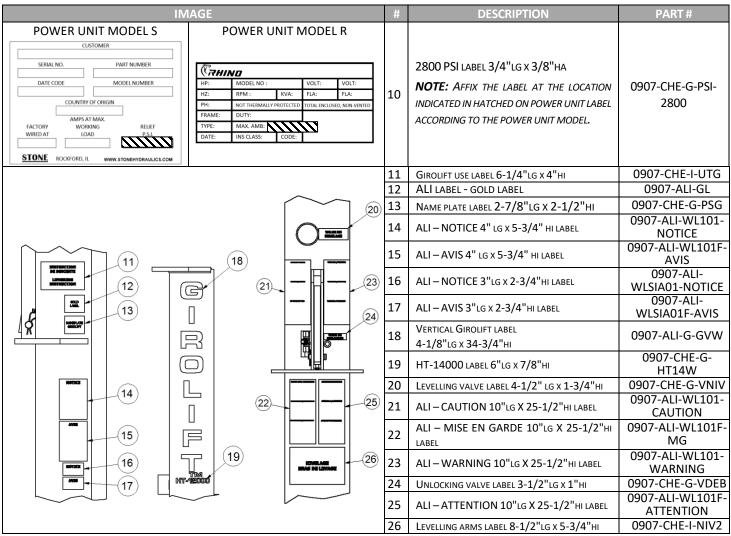


CYLINDER

AUTOMATIC SWING ARM RESTRAINT

CYLINDER													
# DESCRIPT	ION	PART#	#	DESCR	IPTION	PART #							
1 MASTER CYLINDER SEAL		SKC-12-CY1-A01				BRAD20-U0601-01-							
2 SLAVE CYLINDER SEAL KIT		SKC-12-CY2-A01	1	1/4 " x 2-1/16" rod	WITH THREADS	NF							
A B B B B B B B B B B B B B B B B B B B		O DETAIL C O O O O O O O O O O O O O O O O O O O			-1								
POWER UNIT			-										
			#		RIPTION	PART #							
RO.	\bigcirc		-11	220 VOLTS ASSEMBLED	14-00-13_0-506								
		7	1	220 VOLTS ASSEMBLED									
		2	2	575 VOLTS ASSEMBLED	14-00-13_0-R06 14-00-13_1-S06								
# IMAGE	DESCRIPTION	PART #	#	IMAGE	DESCRIPTION	PART #							
		POWER U	JNITS										
1	Manual release Valve	0243-VF-9021	3		CHECK VALVE	0243-DCV-080- PB-N-5							
2	PRESSURE RELEASE HANDLE WITH BLACK BALL	0243-2565-AA	4		STARRY COUPLING 1.26" LG SAE 9T- 20/40	0243-1118-AA-V							
POWER	R UNITS 220 VOLTS – S				R UNITS 575 VOLTS -	- S							
1	ELECTRIC MOTOR FOR POWER UNIT WITH SWITCH 220/1/60	MUH-220-1-60	1		ELECTRIC MOTOR FOR POWER UNIT WITH SWITCH 575/3/60								

#	IMAGE	DESCRIPTION	PART #	#	IMAGE	DESCRIPTION	PART #				
	POW	ER UNITS 220 VOLTS – S	POWI	ER UNITS 575 VOLTS	— S						
2		Switch with cover 230/1/60	0243-W-400	2	S	Drum switch with cover 25A 575/3/60					
3		GREEN BUTTON	0243-4610-AA	3		Drum swith 25A 15HP @ 600 VAC 575/3/60	(1)/13-				
4		Microswitch 220/1/60	CHE-MS-220								
5	A A A	GENERAL PURPOSE RELAYS 30A 24AC									
			POWER UNITS	220 \	'OLTS – R						
1		Electric motor for Power unit with switch 220/1/60	MUH-220-1-60- R	3		CHECK VALVE	0243-WG-05- 1001				
2		PRESSURE RELEASE HANDLE WITH MANUAL RELEASE VALVE	0243-WX2-01- 4010								
LA	ABEL										
		IMAGE		#	DESC	RIPTION	PART #				
	(1	CONNECT PNEUMAT COLUMN LABEL 7-1/2	тс hose to other 2"lg x 1"ні	0907-CHE-I-RELC				
				2	CONNECT PNEUMATIC LABEL 7-1/2"LG X 1"	: Hose to main air line Hi	0907-CHE-I-RELA				
	220 VOLTS – S	220 VOLTS – R	575 VOLTS – S	3	CONNECT TIME DE 3/4"LG X 1-1/2"HI	ELAY FUSES LABEL 2-	0907-CHE-WL-FUSE				
						4	RISK OF EXPLOSIC 3/4"LG x 4-1/2"HI	DN/SHOCK LABEL 2-	0907-CHE-WL-REC		
	6	9	8 7.1	5	1/2"ні	ABEL 2-7/8"LG X 1-	0907-CHE-WL-SEAL				
		5	5	6	1/2"ні	DLTS LABEL 1-1/2"LG X	0907-CHE-G-DC220				
	3-4	3	(4) *	7.:		0907-CHE-I-4A					
(4	4		7.2	<u>2</u> 1/2"ні	DLTS LABEL 1-1/2"LG X	0907-CHE-G-DC575				
				8	3"LG X 1"ні	EMENT - TURN LABEL	0907-CHE-I-MOV-T				
				9	DIRECTION OF MC LABEL 3-1/2"LG X 5	0907-CHE-I-MOV220					

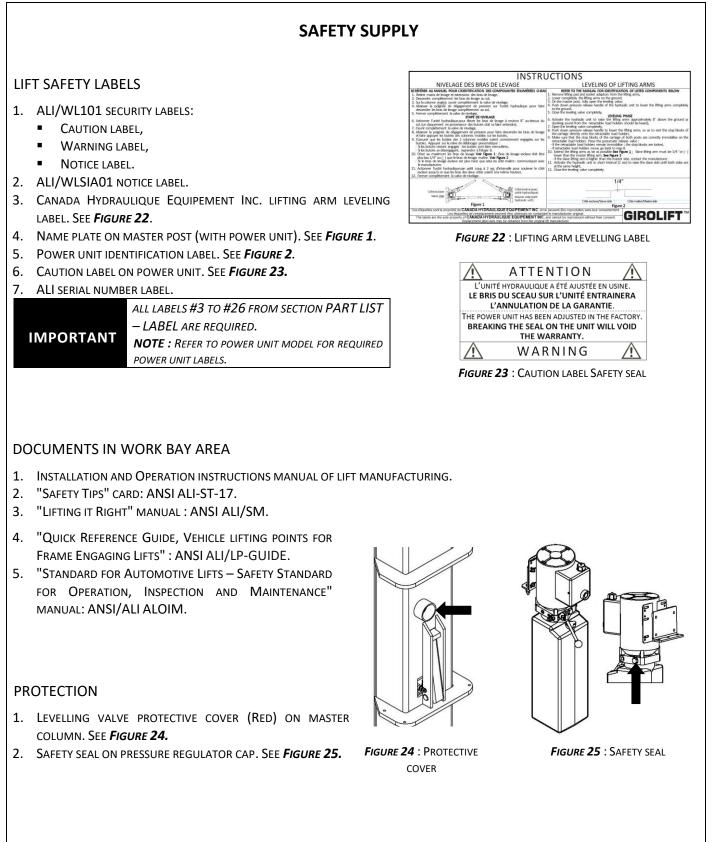


* NOTE: LABELS # 18 AND # 19 ARE FOUND ON THE 2 FACADES OF EACH OF THE MASTER AND SLAVE COLUMNS.

MORE

#	IMAGE	DESCRIPTION	PART #
1	0	OPTION Ø 2-1/2" X 1-1/2" LG – PIN 1-1/2" LG EXTENSION SOCKET	RA25-01500-TS

ANNEX 1



ANNEX 2

USER MAINTENANCE FORM FOR 2 POST LIFT ^{3*}

MODEL :	
SERIAL NUMBER :	

INSTRUCTIONS

1. NOTE DOWN THE MODEL, THE SERIAL NUMBER AND THE MONTH OF THE INSPECTION PERIOD.

2. DAILY MAINTENANCE : NOTE "C" (COMPLY), "NC" (NOT COMPLIANT) OR "NI" (NOT INSPECTED) AND INITIALIZE IN APPROPRIATE BOXES OF THE DAY INSPECTED.

3. IF IT IS NOT COMPLIANT OR ANY INTERVENTION HAS BEEN MADE, IDENTIFY IN THE NOTE SECTION THE ACTION TAKEN AND THE DATE.

4. DO MONTHLY MAINTENANCE THE LAST DAY OF THE MONTH INSPECTED.

	DAILY												Ν	ЛС	DN	T	1:																	
#	MAINTENAN	CE																C	/ NC	C/N														
	D	AY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
	Visual																																	
1	COMPLIANCE OF																																	
	ANCHORS																																	
2	VISUAL FLOOR COMPLIANCE																																	
	VISUAL COMPLIA	NCE																																
3	OF THE HYDRAUL	IC.																																
	SYSTEM																																	
4	Component																																	
_	COMPLIANCE																																	
	Swing arm																																	
5	RESTRAINT																																	
	COMPLIANCE																																	
6	BASE CLEANLINE	SS																																
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³ USER MAINTENANCE FORM FOR 2 POST LIFT AVAILABLE BY CONTACTING THE MANUFACTURER.

ANNEX 3

